COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NMAC307: STRATEGIC MANAGEMENT ACCOUNTING

END OF SECOND SEMESTER EXAMINATION

MAY 2021

LECTURER: DR J MUZURURA

TIME: 7 HOURS

INSTRUCTIONS

Answer **ONE** question

The marks allocated to each question are shown at the end of the question.

Show all your workings where it is required.

Credit will be given for presentations that are neat, logical and grammatically well constructed.

Question One

1 (a)

Style Plus is a manufacturer of leather bags. It is a well-known brand in the market. Robin was appointed as the Chief Executive Officer (CEO) of Style Plus four years ago (after the death of his father who was the previous CEO). He has a dominant and arrogant style of working and does not take into consideration the ideas suggested by other board members.

Waterman, a newly appointed director of Style Plus, wonders why Style Plus has not come up with any new product over the last three years and also has no projects under consideration. In his opinion, in this competitive era, the company should try to give something innovative to the customer. At the same time, diversification could also help Style Plus to remain in competition. Therefore, Waterman suggests that, along with manufacturing leather bags, Style Plus should start manufacturing leather shoes. However, Robin does not like the idea. In addition, Waterman expects that other members of the board will not support him because they appear to him to be passive. With the growth in retail chains (where many varieties are available), Style Plus is facing tough competition. The sales of Style Plus have been showing a decreasing trend over the last two years, as have the profits. In addition, the market share of Style Plus has declined from 33% to 17% over the last four years.

The financial information of Style Plus is as follows:

Statement of financial position

	March 2019 $000		April 2019 $000	
Non-current assets				
Land and buildings (net)	216.00		195.75	
Property ,Plant and equipment (net)	249.75	465.75	237.60	433.35
Current assets				
Inventory	162.00		135.00	
Receivables	46.50		37.10	
Cash at bank	0.75	209.25	2.05	174.15
		675		607.50
Shareholder's funds				
Ordinary shares(50cents per share)	67.50		67.50	
Reserves	145.80	213.30	141.75	209.25
Loan funds				
15% debentures ($100 par)	152.55		152.55	
Term loans	94.50	247.05	60.75	213.30
Current liabilities				
Dividends payable	12.15		12.15	

Tax payable	6.75		10.80	
Trade payables	195.74	214.55	162.00	184.95
		675		607.50

Extracts from statement of comprehensive income		
	2018	2019
	$000	$000
Sales	586.80	633.60
Earnings before interest and taxes	56.70	66.50
Interest	(27.00)	(23.50)
Earnings before tax	29.70	43.00
Taxation @25%	(7.43)	(10.75)
Available to shareholders	22.27	32.25
Dividend	(19.00)	(19.00)
Retained earnings	3.27	13.25

Required:

(a) Calculate the Z score for Style Plus and comment on the probability of the failure of Style Plus. (10 marks)

(b) Identify the qualitative information which indicates that Style Plus might fail. (10 marks)

(c) Recommend the performance improvement strategies that may be adopted by Style Plus (15 marks)

I (b)

Home Made Furniture's (HMF) is into the business of home and commercial furnishing. It was established by Ringo in the year 2015. After graduating in interior designing, Ringo spent 3 years working for a commercial designing firm before establishing his own firm. Since its inception, HMF has grown to achieve an annual sales turnover of $60 million during the year 2019. The revenue streams of HMF mainly include the following:

- Rich individual customers who get their villas furnished
- Specialty furnishing projects for clients like commercial hotels, restaurants and hospitals.

For all its projects, HMF provides end-to-end solutions, including the designing, execution and one-year maintenance post execution.

HMF has been using the job costing method for smaller customer orders and the contract costing method for the bigger contracts. It has been using absorption costing all these years. The control aspect is handled through the budgetary control system established in the company. The information system is currently capable of handling the financial accounts. The reports (like job-wise profitability, wastage generated, purchases made, etc.) required by the management are prepared manually. Over the past 5 years, quite a few new furnishing companies have come up and HMF now has tough competition to face. It cannot use the traditional 'cost plus's basis for pricing as they have been out priced by the competition on many occasions.

Ringo is concerned as the sales have not shown the desired growth although the industry growth rate is good. He attributes the lacklustre performance of HMF to lack of a proper information system. He claims that many decisions get delayed for want of information. The company is unable to respond quickly to the changing needs of the business environment as the systems are outdated and cannot keep pace with the changes.

Required:

(a) Assess why the traditional management accounting techniques are not sufficient for HMF in the rapidly changing business environment. (10 marks)

(b) Suggest how information technology would help HMF to generate information to manage its performance and achieve strategic objectives (5 marks)

(c) Recommend four contemporary management accounting tools that HMF must adopt under the given circumstances. (5 marks).

Question 2

(2a)

TIMBERMILLS is formed of two autonomous divisions, Timber and Steel, and manufactures components for use in the construction industry. TIMBERMILLS has always absorbed production overheads to the cost of each product on the basis of machine hours.

Timber Division

Timber Division manufactures timber frames used to support the roofs of new houses. The timber, which is purchased pre-cut to the correct length, is assembled into the finished frame by a factory worker who fastens the components together. Timber Division manufactures six standard sizes of frame which is sufficient for use in most newly built houses.

Steel Division

Steel Division manufactures steel frames and roof supports for use in small commercial buildings such as shops and restaurants. There is a large range of products, and many customers also specify bespoke designs for short production runs or one-off building projects. Steel is cut and drilled using the division's own programmable computer aided manufacturing machinery (CAM), and is bolted together or welded by hand. Steel Division's strategy is to produce novel bespoke products at a price comparable to the simpler and more conventional products offered by its competitors. For example, many of Steel Division's customers choose to have steel covered in one of a wide variety of coloured paints and other protective coatings at the end of the production process. This is performed off-site by a subcontractor, after which the product is returned to Steel Division for despatch to the customer. Customers are charged the subcontractor's cost plus a 10% mark up for choosing this option. The board of Steel Division has admitted that this pricing structure may be too simplistic, and that it is unsure of the overall profitability of sales of some groups of products or sectors of the market. Recently, several customers have complained that incorrectly applied paint has flaked off the steel after only a few months' use. More seriously, a fast food restaurant has commenced litigation with TIMBERMILLS after it had to close for a week while steel roof frames supplied by Steel Division were repainted. Following this, the production manager has proposed increasing the number of staff inspecting the quality of coating on the frames, and purchasing expensive imaging machinery to make inspection more efficient. The chief executive officer (CEO) at TIMBERMILLS has approached you as a performance management expert for your advice. 'At a conference recently', he told you, 'I watched a presentation by a CEO at a similar business to ours talking about the advantages and disadvantages of using activity based costing (ABC) and how over several years the adoption of activity based management (ABM) had helped them to improve both strategic and operational performance.'

'I don't want you to do any detailed calculations at this stage, but I'd like to know more about ABC and ABM, and know whether they would be useful for TIMBERMILLS', he said. You are provided with extracts of the most recent management accounts for Timber and Steel Divisions:

Division ($000)	***Timber***	***Steel***
Revenue	25,815	20,605
Materials	12,000	10,100
Direct labour	4,500	850
Subcontract costs	75	650
Analysis of production overheads ($000)		
Set up time for CAM machinery	–	575
Machining time	–	2,777
Storage of goods returned from subcontractors	120	395
Transfer of goods to and from subcontractors	50	300
Inspection and testing	35	425
Total production overheads	205	4,472
Gross profit	**9,035**	**4,533**

Required:

(a) (i) Advise the CEO how activity based costing could be implemented. (15 marks)

(ii) Assess whether it may be more appropriate to use activity based costing in Timber and Steel Divisions than the costing basis currently used. (10 marks)

(b) Advise the CEO how activity based management could be used to improve business performance in TIMBERMILLS (15 marks)

(2b)

Total Quality Management (TQM) at Oil Presser

The Oil Presser division is analysing expanding its total quality management program. It already has a TQM program in place. However, one of its customers, ZIMGOL, is asking all suppliers to become ISO9000-qualified, a process that certifies that that the firm met various standards. Once suppliers are ISO 9000- qualified, ZIMGOL can reduce its inspection costs. Not all of the suppliers will be certified, and those that are will receive more business from ZIMGOL. ZIMGOL purchases raw cooking oil from The Oil Presser. After earning ISO9000 certification, The Oil Presser estimates that it will have to incur the following annual incremental costs as long as it wants to maintain its certification:

Annual incremental costs to be ISO 9000 certified

Training	$60 000
Inspection	$95 000
Prevention	$ 65 000
Direct materials	+12%
Direct labour	+16%

To produce the current quality or rotors (before ISO9000 certification, the budgeted selling price and standard cost data per rotor follow:

Selling price	20.00
Less standard costs:	
Direct material	6.00
Direct labour	4.00
Manufacturing overhead (all fixed)	3.50
Selling and administrative (all variable)	2.50
Unit cost	16.00
Unit profit	4.00

Unless The Oil Presser receives ISO9000 certification, it will lose ZIMGOL's business of 130 000 units per unit per year. Management estimates that the higher quality of the rotor that meets quality criteria will allow The Oil Presser to add 15 000 rotors to its existing sales from new and continuing customers. The Oil Presser is currently selling 500 000 rotors per year.

a) In view of the expected benefits, discuss the benefits of ISO Certification (10 marks).

b) Discuss how the oil presser can benefit from benchmarking exercise (10 marks)

Question 3

3 (a)

Tahugara Mines is a mineral ore mining business in the country of Mutare Land. It owns and operates four mines. A mine takes on average two years to develop before it can produce ore and the revenue from the mine is split (25:75) between selling the ore under fixed price contracts over five years and selling on the spot market. The bulk of the business's production is exported. A mine has an average working life of about 20 years before all the profitable ore is extracted. It then takes a year to decommission the site and return the land to a useable form for agriculture or other developments. Recent events One of Tahugara Mines's foreign competitors surprised the market by becoming insolvent as a result of paying too much to acquire a competitor when the selling price of their minerals dipped as the world economy went into recession. As a result, the chief executive officer (CEO) wanted to know if this was likely to happen to Tahugara Mines. She had read about the Altman Z-score as a way of predicting corporate failure and had a business analyst prepare a report calculating the Z-score for Tahugara Mines. The report is summarised in Appendix 1. The analyst had done what was asked and calculated the score but had not explained what it meant or what action should be taken as a result. Therefore, the CEO has turned to you to help her to make sense of this work and for advice about how to use the information and how Tahugara Mines should proceed into the future.

Required:

(a) Evaluate both the result of the analyst's calculations and the appropriateness of these two models for Tahugara Mines. (15 marks)

(b) Explain the potential effects of a mine's lifecycle on Tahugara Mines's Z-score and the company's probability of failure. Note: You should ignore its effect on the Q-score. (15 marks)

(c) Give four detailed recommendations to reduce the probability of failure of Tahugara Mines, providing suitable justifications for your advice. (10 marks).

Appendix 1 Analyst's Report (extract)

The Altman Z-score model is: $Z = 1{\cdot}2X1 + 1{\cdot}4X2 + 3{\cdot}3X3 + 0{\cdot}6X4 + X5$

Another quantitative model (Q-score model) has been produced by academics working at Africa University main university based on recent data from listed companies on the small Mutare land stock exchange.

It is: $Q = 1{\cdot}4X1 + 3{\cdot}3X3 + 0{\cdot}5X4 + 1{\cdot}1X5 + 1{\cdot}7X6$

Where for both models: X1 is working capital/total assets;

X2 is retained earnings reserve/total assets;

X3 is profit before interest and tax/total assets;

X4 is market value of equity/total long-term debt (MVe/total long-term debt);

X5 is revenue/total assets; and

X6 is current assets/current liabilities.

Using the most recent figures from Tahugara Mines's financial statements (year ending September 20X4), Tahugara Mines's Altman Z-score is 3·5 and its score from the other model (Q) is 3·1.

For both models, a score of more than 3 (for Z or Q) is considered safe and at below 1·8, the company is at risk of failure in the next two years.

3 (b)

The Drinks Group (DG) has been created over the last three years by merging three medium-sized family businesses. These businesses are all involved in making fruit drinks. Fizzy (F) makes and bottles healthy, fruit based sparkling drinks. Still (S) makes and bottles fruit-flavoured no sparkling drinks and Healthy (H) buys fruit and squeezes it to make basic fruit juices. The three companies have been divisionalised within the group structure. A fourth division called Marketing (M) exists to market the products of the other divisions to various large retail chains. Marketing has only recently been set up in order to help the business expand. All of the operations and sales of DG occur in Nordland, which is an economically well-developed country with a strong market for healthy non-alcoholic drinks.

The group has recruited a new finance director (FD), who was asked by the board to perform a review of the efficiency and effectiveness of the finance department as her first task on taking office. The finance director has just presented her report to the board regarding some problems at DG.

Extract from the finance director's Report to the Board

'The main area for improvement, which was discussed at the last board meeting, is the need to improve profit margins throughout the business. There is no strong evidence that new products or markets are required but that the most promising area for improvement lies in better internal control practices.

Control

As DG was formed from an integration of the original businesses (F, S, H), there was little immediate effort put into optimising the control systems of these businesses. They have each evolved over time in their own way. Currently, the main method of central control that can be used to drive profit margin improvement is the budget system in each business. The budgeting method used is to take the previous year's figures and simply increment them by estimates of growth in the market that will occur over the next year. These growth estimates are obtained through a discussion between the financial managers at group level and the relevant divisional managers. The management at each division are then given these budgets by head office and their personal targets are set around achieving the relevant budget numbers.

Divisions

H and S divisions are in stable markets where the levels of demand and competition mean that sales growth is unlikely, unless by acquisition of another brand. The main engine for prospective profit growth in these divisions is through margin improvements. The managers at these divisions have been successful in previous years and generally keep to the agreed budgets. As a result, they are usually not comfortable with changing existing practices. F is faster growing and seen as the star of the Group. However, the Group has been receiving complaints from customers about late deliveries and poor quality control of the F products. The F managers have explained that they are working hard within the budget and capital constraints imposed by the board and have expressed a desire to be less controlled. The marketing division has only recently been set up and the intention is to run each marketing campaign as an individual project which would be charged to the division whose products are benefiting from the campaign. The managers of the manufacturing divisions are very doubtful of the value of M, as each believes that they have an existing strong reputation with their customers that does not require much additional spending on marketing. However, the board decided at the last meeting that there was scope to create and use a marketing budget effectively at DG, if its costs were carefully controlled. Similar to the other divisions, the marketing division budgets are set by taking the previous year's actual spend and adding a percentage increase. For M, the increase corresponds to the previous year's growth in group turnover.'

End of extract

At present, the finance director is harassed by the introduction of a new information system within the finance department which is straining the resources of the department. However, she needs to respond to the issues raised above at the board meeting and so is considering using different budgeting methods at DG. She has asked you, the management accountant at the Group, to do some preliminary work to help her decide whether and how to change the budget methods. The first task that she believes would be useful is to consider the use of rolling budgets. She thinks that fast-growing F may prove the easiest division in which to introduce new ideas.

F's incremental budget for the current year is given below. You can assume that cost of sales and distribution costs are variable and administrative costs are fixed.

	Q1	**Q2**	**Q3**	**Q4**	**Total**
	$000	**$000**	**$000**	**$000**	**$000**
Revenue	17,520	17,958	18,407	18,867	72,752
Cost of sales	9,636	9,877	10,124	10,377	40,014
Gross profit	7,884	8,081	8,283	8,490	32,738
Distribution costs	1,577	1,616	1,657	1,698	6,548
Administration costs	4,214	4,214	4,214	4,214	16,856
Operating profit	2,093	2,251	2,412	2,578	9,334

The actual figures for quarter 1 (which has just completed) are:

	$000
Revenue	17,932
Cost of sales	9,863
Gross profit	8,069
Distribution costs	1,614
Administration costs	4,214
Operating profit	2,241

On the basis of the Q1 results, sales volume growth of 3% per quarter is now expected. The finance director has also heard you talking about bottom-up budgeting and wants you to evaluate its use at DG.

Required:

a) Evaluate the suitability of incremental budgeting at each division (5 marks)
b) Recalculate the budget for Fizzy division (F) using rolling budgeting and assess the use of rolling budgeting at F (5 marks)
c) Recommend any appropriate changes to the budgeting method at the Marketing division (M), providing justifications for your choice (5 marks).
d) Analyse and recommend the appropriate level of participation in budgeting at Drinks Group (DG) (5 marks).

END OF EXAMINATION