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**CERTIFIED PUBLIC ACCOUNTANT
ADVANCED LEVEL 2 EXAMINATIONS
A2.2: STRATEGIC PERFORMANCE MANAGEMENT
DATE: THURSDAY, 29 APRIL 2021**

INSTRUCTIONS:

1. **Time Allowed: 3 hours 45 minutes** (15 minutes reading and 3 hours 30 Minutes writing).
2. This examination has **two** sections: **A & B.**
3. Section A has **one** Compulsory Question while section B has **three** optional questions to choose any **two**.
4. In summary attempt three questions.
5. Marks allocated to each question are shown at the end of the question.
6. Show all your workings where necessary.

SECTION A

QUESTION ONE

Top Energy Solution (TES) is a listed, worldwide manufacturing business. Its mission is to maximise shareholders' wealth through manufacturing excellence.

TES has two divisions, one manufacturing Hydropower plant (HPP) engines and the other Thermal power plant (TPP) engines. It is known for innovation whereby it invests much efforts into creating solutions for sustainable prosperity. To this end, it allows its managers much autonomy to run their own divisions and projects. However, at the recent Annual General Meeting (AGM), the executive management was criticised for not listening to shareholders' worries and letting such autonomy to run out of control.

Consequently, the Board of TES has been studying a number of aspects of the way performance is controlled and managed in the business. However, there are several initiatives already introduced within the company, which the Board feels may help to address the shareholder's concerns.

Such initiatives which are running at present are:

- An analysis of stakeholders influences at TES leading to suitable strategic performance measures.
- A benchmarking exercise of the performance measures from the initiative above with TES's main competitor, High speed engine Ltd (HSE).
- The introduction of quality creativities bringing lean production methods at TES.
- The introduction of a balanced score card performance measurement system.

The Board has asked you as a Strategic Management Consultant, your views about the impact the above initiatives could have on the performance management within TES.

First, a stakeholder analysis has been successively completed by one of TES managers, but he recently left the company and had not yet shared the analysis findings. Therefore, the Board has recommended to management to hire you whereby you are required to take information in appendix 1 prepared by the former TES manager and explain the results and evaluate the suggested performance measures. In addition, management has shared with you appendix 2 containing an email from an outgoing manager explaining the summarized results in appendix 1

Secondly, the Board wants you to use the suggested measures to benchmark the performance of TES against High Speed Engine ltd. by ensuring that you calculate the measures given in appendix 1. You should also add two justified measures of your own. However, restrict yourself to these seven measures and do not provide further details about individual business division. The company's Financial Controller has gathered data to use in the benchmarking exercise **in appendix 3.**

Thirdly, concerning lean manufacturing, there are two projects which have been suggested and the Board needs your advice on how to move to Just-in-Time manufacturing.

Finally, the Board feels that it is important that performance is assessed across a range of non-financial as well as financial measures. They believe that a Balanced Scorecard would give a better choice but have asked you to evaluate its suitability in light of shareholder's worries and other initiatives currently in progress at TES.

Appendix 1.

Key stakeholders	Level of interest	Level of power
Shareholders	Low	High
Employees	Medium	Low
customers	Medium	High
suppliers	Medium	Low

Suggested performance measures:

- Return on capital employed (ROCE)
- Economic value added (EVA)
- Revenue growth
- Average pay per employee
- Net profit margin

Appendix 2: Extract of an email from the outgoing manager explaining the analysis in appendix 1.

Dear CEO, I hope that this mail finds you well.
 Kindly, find the explanation below on the stakeholder's analysis previously done before I left TES:

- i. **Shareholders:** They delegated management to the Board and are only interested in financial returns and they have the ability to vote out existing management.
- ii. **Employees:** The industry requires high skilled employees; thus, they are interested in the new opportunities which the market can present. In addition, TES's employees do not influence its strategic decision; although there is a group of key employees in product devolvement whose skills must not be lost.
- iii. **Customers:** Some of the parts supplied by TES are unique and specifically designed for the customer. It is worth noting that there are few major players in the power plants parts business, the loss of a customer would have a significant impact on TES.
- iv. **Suppliers:** TES is one of the largest customers to many of the company's suppliers. Further, such suppliers are generally bulk component producers and there is significant competition for TES's business.

Appendix 3: The figures drawn from the financial statements for the year to 30 September 2020.

	TES	HSE
	2020	2020
	Frw Millions	Frw Millions
Revenue	47,886	51,930
Cost of sales	36,156	41,210
Other costs	<u>5,916</u>	<u>6,416</u>
Operating profit	5,814	3,764
Financing costs	582	632
Tax	<u>1,326</u>	<u>1,436</u>
Net income	<u>3,906</u>	<u>1,696</u>

	TES		HSE	
	2019	2020	2019	2020
	Frw M	Frw M	Frw M	Frw M
Non-current assets	32,670	33,976	35,432	35,786
Current Assets	<u>21,236</u>	<u>22,086</u>	<u>23,030</u>	<u>23,260</u>
	<u>53,906</u>	<u>56,062</u>	<u>58,462</u>	<u>59,046</u>
Equity	17,968	19,922	19,488	20,166
Non-current liabilities	19,602	19,478	21,258	20,810
Current liabilities	<u>16,336</u>	<u>16,662</u>	<u>17,716</u>	<u>18,070</u>
	<u>53,906</u>	<u>56,062</u>	<u>58,462</u>	<u>59,046</u>

Notes:

	TES	HSE
No of employees	43,310	46,970
Staff cost (Frw M)	9,462	9,826
Revenue for 2019 (Frw M)	45,012	50,876
Product development costs capitalised (Frw M)	1,342	1,100
No of 10 biggest customers where the business has top tier supplier status:		
HPP engines	6	6
TPP engines	7	8

A suitable cost of capital for both 2 companies is 11%

The tax rate is 28% for both TES and HES

Required:

Prepare a report to the Board of TES to:

- a) **Suggest and explain appropriate management approaches to each of the stakeholders and, based on this analysis, evaluate the appropriateness of the measures suggested in appendix 1.** (14Marks)
- b) **Benchmark TES against High speed engine ltd as suggested by the board, evaluating the approach to benchmarking used.** (16Marks)
- c) **Explain the problems likely to arise as a result of moving to Just in time manufacturing at TES.** (6Marks)
- d) **Identify the changes that should be made to TES's management accounting system in order to turn it into a lean information system.** (5Marks)
- e) **Assess the suitability of using a Balanced Score card as a performance measurement system at TES.**

(9Marks)

(Total: 50 Marks)

SECTION B

QUESTION TWO

New Generation Sound (NGS) is a digital radio manufacturing company located in Kigali Special Economic Zone. It produces two models of radios; model VY and model XY. The two models are manufactured and assembled in the same production facility.

The following data relates to year ended 30 September 2020:

- i. Unit selling prices and costs:

	Model VY	Model XY
	Frw	Frw
Selling price	4,000	3,200
Material costs	2,500	1,500
Variable production conversion costs	500	200

- ii. Fixed production costs attributable to the manufacture of these two models of radios will be **Frw 400,000,000** in 2020.
- iii. Expected demand for the two models:
- | | |
|-----------|---------------|
| Model VY: | 240,000 units |
| Model XY: | 300,000 units |
- iv. Each model will be completed in the same finishing department, whereby there will be 70,000 hours available in 2020. Time in finishing department is restricted by a shortage of available equipment which cannot be solved in 2020.

The quantity of each model that can be completed in the finishing department in one hour is as follows:

Model VY: 8 units

Model XY: 6 units

- v. NGS operates a Just in time manufacturing system and its policy is to hold minimum quantities of work-in progress and finished goods. There are no inventories of finished goods at the beginning of the year.

Required:

- (a) **By using marginal costing, advise NGS management on quantities of each model of radio that should be produced and sold in 2020 to maximize profits. Clearly show the profit.** (7Marks)
- (b) **By computing the throughput accounting ratio, explain briefly, how the throughput accounting ratio indicates whether it is worth making a product. State the assumption you made as per the throughput costing principles.** (6 Marks)

(c) Using throughput accounting, Advise the management on quantities of each model of radio that should be produced and sold in 2020 in order to maximize profit and show that profit. (7Marks)

(d) The management of NGS is unaware of difference between marginal and throughput. Describe to the management two aspects in which the concept of contribution in marginal costing differs from the concepts used in throughput accounting. (5 Marks)

(Total 25 Marks)

QUESTION THREE

Iwacu Wellness and Fitness Group (IWFG), which is privately owned, runs three centres in Rwanda. Each centre offers nutrition consultation and fitness services to clients under the supervision of nutrition experts and professional fitness trainers. Residential accommodation is also available at each centre. The centres are located in three cities, namely: Kigali, Musanze and Rubavu.

The following information is available:

1. The financial data for IWFG for the year ended 30 June 2020 is as follows:

	Kigali Frw ''000''	Musanze Frw ''000''	Rubavu Frw ''000''	Total Frw ''000''
<i>Revenue:</i>				
Fees received	4,200	9,000	3,600	16,800
Variable cost	<u>(1,134)</u>	<u>(2,790)</u>	<u>(936)</u>	<u>(4,860)</u>
Contribution	3,066	6,210	2,664	11,940
Fixed costs	<u>(2,184)</u>	<u>(4,804)</u>	<u>(1,872)</u>	<u>(8,860)</u>
Operating profit	882	1,406	792	<u>3,080</u>
Interest on long-term debt at 10%				<u>(360)</u>
Profit before tax expense				2,720
Income tax expense				<u>(816)</u>
Profit for the year				<u>1,904</u>
Average book values for 2020:				
<i>Assets:</i>				
Non-current assets	5,000	6,600	2,000	13,600
Current assets	<u>1,800</u>	<u>2,000</u>	<u>1,600</u>	<u>5,400</u>
Total Assets	6,800	8,600	3,600	<u>19,000</u>
<i>Equity and liabilities</i>				
Share capital				5,000
Retained Earnings				<u>8,800</u>
Total equity				13,800
<i>Non-current liabilities</i>				
Long term borrowings				<u>3,600</u>

Total liabilities	Non-current			3600
Current liabilities	<u>480</u>	<u>960</u>	<u>160</u>	<u>1600</u>
Total current liabilities	480	960	160	1600
Total liabilities				<u>5200</u>
Total equity and liabilities				<u>19,000</u>

2. IWFG defines Residual Income (RI) for each centre as operating profit minus a required rate of return of 12%
3. Currently IWFG does not allocate the long term-term borrowings of the group to the three separate centres
4. Each centre faces similar risks
5. Corporate income tax rate in Rwanda is 30%
6. The market value of equity capital of IWFG is Frw 18 Million
7. The market value of the long-term borrowings of IWFG is equal to the book value
8. The Group specialists are concerned about the return on investment (ROI) generated by Kigali center and they are considering using sensitivity analysis in order to show how a target ROI of 20% might be achieved
9. The Marketing Director stated, at a recent Board meeting that ‘‘the Group’s success depends on the quality of services provided to our clients’’. In my opinion, we need only to concern ourselves with the number of complaints received from our clients during each period as this is the most important performance measure in our industry. The number of complaints received from clients is a faultless performance measure, as long as the complaints from clients are not increasing from period to period, we can be confident about our future prospects.

Required:

a) The management of IWFG has asked you as a Management Accounting Specialist, to prepare a report providing them with explanations as to the following:

i) **Which of the three centres is the most ‘successful’? Your report should include a commentary on return on investment (ROI), residual income (RI) and economic value added (EVA) as measures of financial performance. Detailed calculations regarding each of these three measures must be included as part of your report.**

Note: A maximum of seven marks is available for detailed calculations. (16 Marks)

ii) **The percentage change in revenue, total costs and net assets during the year ended 30 June 2020 that have been required in order to have achieved a target ROI of 20% by Kigali centre. Your answer should consider each of these three variables in isolation. State any assumptions that you make.** (6 Marks)

iii) **Whether or not you agree with the statement of the Marketing Director in note (9) above.**

(3 Marks)

(Total:25 Marks)

QUESTION FOUR

Rwezamenyo Banana Wine (RBW) Ltd was created two years ago by a group of four investors. It is involved in production of wines and beer from bananas. All of the production and sales of RBW occur in Rwanda, which is an economically fast developing country with a strong market for alcohol-based drinks.

The previous report addressed to shareholders by the Finance Director stressed that the main area that requires improvements, is the need to improve profit margin for the business. It concluded that there is no strong evidence that new products or markets are required but that the most promising area lies in better internal control practices.

RBW is growing rapidly; however, the company has been receiving complaints from its distributors about late deliveries and poor-quality control of RBW wines and beers. The managers have explained that they are working hard within budget constraints and capital constraints imposed by the shareholders and have expressed a desire to be less controlled. To this end; the Finance Director is proposing to use different budgeting methods in order to respond to the above issues. She has requested you, the Management Accountant at the company to do some preliminary work to help her conclude on whether and how to change the budget methods. The first task that she considers to be useful is to consider the use of rolling budgets. She thinks that RBW as a fast-growing company proves that it's easy to introduce new ideas. It is worth noting that currently, the Finance Department is overwhelmed by the introduction of a new information system within the Finance Department which is pulling the resources of the department.

RBW's incremental budget for current the year is given below. Assume that cost of sales and distribution costs are variable and administrative costs are fixed.

	Q1	Q2	Q3	Q4	Total
	Frw "000"	Frw "000"	Frw "000"	Frw "000"	Frw "000"
Revenue	70,080	70,392	73,628	75,468	289,568
Cost of sales	38,544	39,508	40,496	41,508	160,056
Gross profit	31,536	32,324	33,132	33,960	130,952
Distribution costs	6,308	6,464	6,628	6,792	26,192
Administration costs	16,856	16,856	16,856	16,856	67,424
Operating profit	8,372	9,004	9,648	10,312	37,336

The actual figures for quarter 1 which has already been completed are:

	Frw "000"
Revenue	70,080
Cost of sales	38,544
Gross profit	31,536
Distribution costs	6,308
Administration costs	16,856
Operating profit	8,372

On the basis of the above Q1 results, sales volume growth of 4% per quarter is currently expected.

Required:

(a) Evaluate the suitability of using incremental budgeting at RBW. (7Marks)

(b) Recalculate the budget using rolling budgeting and assess the use of rolling budget at RBW. (8Marks)

RBW is not yet dominant in the Rwanda market and as result, it has accepted the market price for each of its products. The company is keen to ensure that it continues to compete and earn satisfactory profit at each stage throughout the product life cycle.

(c) Explain how RBW could use target costing and Kaizen costing to improve its future performance. Your answer should include an explanation on the difference between target costing and kaizen costing.

(10 Marks)

(Total:25 Marks)

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