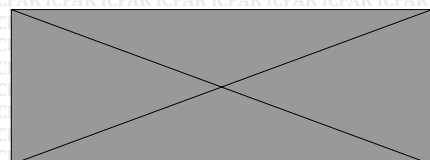




INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF RWANDA
Driving Sustainable Performance



CERTIFIED PUBLIC ACCOUNTANT ADVANCED LEVEL 2 EXAMINATIONS

A2.2: STRATEGIC PERFORMANCE MANAGEMENT

FRIDAY: 02 DECEMBER 2016

INSTRUCTIONS:

- 1. Time Allowed: 3 hours 45 minutes (15 minutes reading and 3 hours 30 minutes writing).**
- 2. This examination has one case study**
- 3. Show all your workings**
- 4. All iCPAR Examination rules and regulations apply.**

CASE STUDY

Gisenyi Construction Company Ltd (GCCL) established in 1965 by late Prof. Eng. Pierre Kalenzi in Gisenyi has existed since then as a family business. GCCL expanded enormously until the late 1980s. During that time GCCL had full control of Pierre Vocational School (PVS), Butare City Hotel (BCH) and Gisenyi Breweries Limited (GBL).

In spite of experiencing tough times in the 1990s the GCCL group continued to operate when some companies in Rwanda were forced into closure. In 2014, GCCL Group acquired 80% of Gitarama Telecom Network (GTN) ordinary shares.

Prof. Pierre Habimana, founder's son, was elected as GCCL Group chairman in December, 2015. Economists considered his election as an opportunity to bring back GCCL Group to its joyful historical days of 1980s. He is a CPA with PhD in financial management, Master of Business Administration and Bachelor of Commerce. He has worked in Europe, Central and East Africa serving in various corporate positions and currently heads the school of business studies in Gisenyi University.

Prof. Pierre Habimana's message to all chief executives of the group members was that significant change has to be made within the first two years of his term in office. He observed that previously managers have been making decisions casually without analysing the available information. He gave a roadmap of decision processes for each group member that has to be taken as strategic direction in the mean time while a ten year strategic plan was being developed.

The following is the information about GCCL Group:

1. Gisenyi Construction Company Ltd (GCCL)

GCCL is the parent of the other members in the group. GCCL's primary business is civil engineering construction mainly within Central, Southern and Eastern Africa. GCCL has pricing challenges due to inflation, bureaucratic systems and exchange rates. GCCL has been sometimes forced into incurring huge losses in order not to compromise quality, a competitive edge they have enjoyed for over 50 years.

GCCL uses both financial and non-financial measures to evaluate its performance in various areas. This has helped in improving the quality of its work since previous errors are always noticed before commencing on the subsequent assignment.

GCCL recently won a tender to construct a highway connecting Gisagara to Gakenke within 5 years commencing 1 January, 2017. GCCL will pay a 3% penalty of contract price when it fails to complete in the agreed time. The distance between the two districts is 186.6 km. GCCL adds an 8% mark-up on its estimated total cost.

GCCL's estimated cost function for such high ways is given by (in Frw million), where TC is total cost and is number of kilometres. GCCL's year has 350 working days.

Direct labour always hinders work completion within agreed time and GCCL estimates 10 days to complete each kilometre of this highway. GCCL pays Frw 24 million per kilometre for direct labour and can only complete 100 km with 60 men available in 5 years.

GCCL plans to recruit 40 more men from Gakenke Casual Workers Association (GCWA) to complete the remaining distance to avoid the penalty. Workers of GCWA have a record of 90% learning curve effect on road works and normally they take 15 days to complete the first kilometer on new sites. GCCL will therefore pay GCWA Frw 500 million as recruitment costs and daily allowances for each man of Frw 86,600 per day.

2. Pierre Vocational School (PVS)

PVS has two campuses located in Kibuye and Kibeho which are commonly known as the KKs. PVS has had a number of strikes on both campuses involving students, non-teaching staff and suppliers. During the annual general meeting (AGM) held in December 2015, members were furious about the strikes that have tarnished the name of a once prominent school. Members resolved that Mr. Gahigi, a senior educationist, be engaged to investigate the cause of these strikes. Mr. Gahigi submitted the report to the group chairman after completing the assignment. The report highlighted lack of standardized management and budgetary control systems to the extent that PVS has been operating deficit budgets for the last five years with no

contribution to the group.

The group chairman has tasked the PVS's bursar to prepare a sample feeding budget for beans, maize flour and sugar for the first term of the academic year 2017 following the report recommendations. The report recommended the use of activity-based budgeting (ABB) to solve the recurring budget deficits.

The actual consumption of beans, maize flour and sugar as at the end of third term of 2016 is as follows:

	Frw '000'	Frw '000'
Feeding fees		80,000
Purchase costs	18,020	
Labour costs	28,640	
Overhead costs	35,800	(82,460)
Deficit		(2,460)

	Beans	Maize flour	Sugar
Items purchased and used (100 Kg bags)	52	160	80
	Frw '000'	Frw '000'	Frw '000'
Feeding fees per bag	400	265	210
Purchase cost per bag	(85)	(60)	(50)
Labour cost per bag	(120)	(100)	(80)
Overheads per bag	(150)	(125)	(100)
Surplus/ (deficit) per bag	45	(20)	(20)

Overheads incurred:

	Frw '000'
Processing purchase orders	5,500
Receiving items	4,000
Inspection for purchased items	2,500
Storage costs	6,000
Processing suppliers' payments	3,500

Activity drivers:

	Beans	Maize flour	Sugar
Number of purchase orders	10	9	9
Number of goods received notes	4	2	2
Number of items stored	24	20	16

Additional information:

Inspection reports and payments to suppliers depend on the items delivered and received. The consumption rate for first term of 2017 is expected to increase by 10%. The school enrollment is estimated to increase by 15% which will accordingly increase the feeding fees for the first term of 2017.

The purchase and labour costs per bag will not change since PVS signed contracts with suppliers in 2014 for a period of five years. There is no expected change in overheads.

3. Gisenyi Breweries Limited (GBL)

GBL produces both beers and spirits under semi-autonomous departments. The beer department has Nyanza, Ngoma and Nyabihu beer brands with high demand across Africa. GCCL group conducted a market survey across Africa for GBL products and established that beer brands' market share had reduced by 7.5%. It further noted that beer prices were far higher than those of competitors.

GBL attributes this reduction to the distribution inefficiencies in the past two years caused by poor inven-

tory management system and delay to pay material suppliers. The head of the beer department had already complained about the higher prices arising from the existing inefficient costing system.

The group chairman requested GBL’s chief executive to present a production plan for December 2016 based on throughput accounting for the beer department in the monthly meeting of November 2016.

GBL plans to produce 15,000 crates of Ngoma, 12,000 crates of Nyanza and 9,000 crates of Nyabihu in the month of December 2016. Ngoma is sold at Frw 16,800, Nyanza at Frw 17,000 and Nyabihu at Frw 13,500 per crate. There are 15,000 machine hours and 36,000 labour hours for beer department.

GBL’s beer department planned cost data for the month of December, 2016 is as follows:

Cost per crate	Ngoma (Frw)	Nyanza (Frw)	Nyabihu (Frw)
Materials	3,360	4,315	2,667
Direct labour	4,032	3,920	2,400
Variable overheads	3,360	3,270	2,000
Fixed overheads	2,016	1,960	1,200

Additional information:

	Ngoma	Nyanza	Nyabihu
Machine hours per crate	0.5	0.4	0.6
Labour hours per crate	1.0	0.8	1.2

Kirehe Breweries Ltd (KBL), another brewing company, produces only one brand of beer that is similar to Nyabihu beer and has proposed to supply the unbottled beer equivalent to 9,000 crates to GBL at price of Frw 8,100 per crate equivalent. GBL spends Frw 1,655 to bottle, brand and pack one crate of Nyabihu beer.

4. Butare City Hotel (BCH)

BCH is a world-class hotel with three independent departments of accommodation (A), conferences (C) and restaurant (R). BCH has sauna, swimming pool and body gym facilities for its clients. BCH appraises departmental heads based on the departmental net profit. All along the departmental heads have considered this system to be unfair.

The group chairman advised BCH’s chief executive to appraise his departmental heads using the economic value added (EVATM) method because it considers all cost burdens of the company. BCH has issued a new appraisal system based on EVATM for departmental heads that will start working in 2017.

BCH’s budget extracts for the year 2017 are as follows;

	A	C	R	BCH
Number of clients	25,000	2,500	50,000	
Rate for client (Frw)	55,000	650,000	35,500	
Variable costs per client (Frw)	35,800	496,000	31,800	
Fixed costs (Frw‘000’):				
Utilities				225,625
Depreciation				178,933
Administration expenses				436,742
Maintenance of sauna and gym				79,550
Marketing expenses				190,000
Capital (Frw‘000’):				
Investment	300,000	200,000	150,000	725,000
Estimated net profit/ (loss) (Frw‘000’)	(2,425)	18,764.5	56,705.5	

Additional information:

	A	C	R	BCH
Space (m ²)	25,000	15,500	5,500	50,000
Number of adverts	45	60	15	150
Number of visits to sauna and gym	15,000	4,500	9,900	30,000

BCH allocates 60% of depreciation and 80% of administration expenses to the departments and departments share these expenses according to the space occupied. 10% of the variable costs relates to depreciation.

BCH has a 20 year 15% loan of Frw 800 million but the acquisition of loans is limited to the group chairman and chief executive. BCH allocates interest on loans equally to all departments. BCH has an average cost of capital of 20%.

BCH allocates revenue from sauna and gym according to the number of visits and it expects to collect Frw 150 million in 2017.

5. Gitarama Telecom Network (GTN)

The group chairman embraced the acquisition of GTN and promised to work towards the growth of its market share to 65% in the first five years. During the AGM held in December, 2015 members resolved to develop and launch a new product. However, they are not certain of the likely results and have engaged a research and development (R&D) consultant at a cost of Frw 50 million for professional advice. There is an 80% chance that the product launch will be successful due to the attractive features intended to be considered. If it is successful, the levels of expected profits and the probability of each outcome has been estimated depending on whether the product's attractiveness is high, medium and low.

Product's attractiveness	Profit (Frw 'million')	Probability
High	60	0.25
Medium	50	0.40
Low	40	0.35

The above profits are net of the R&D costs and expected to accrue evenly for five years.

If the development and launch of the product fails, there is a 70% chance that the R&D work can be disposed of at a profit of Frw 10 million and 30% chance that it will be worth nothing at all and GTN will incur a non-productive loss to pay for development costs.

GTN operates under two departments of Avuyo and Power Bank. The Avuyo department assembles and produces full landline phones known as Avuyo. The Power Bank department produces power banks and sells them to both Avuyo department and other telecom firms within and outside Rwanda.

The phone keyboards are imported but all other parts are manufactured in-house. Avuyo landline has a strong reputation mainly due to its innovative designs, and special in-built power bank that can last for a whole day which makes it a hot cake in areas with limited electricity supply.

Costs for the month of November, 2016 are as follows:

Department	Avuyo	Power Bank
Production levels (sets)	80	120
	Frw'000'	Frw '000'
Direct materials	1,000	450
Direct labour	1,500	950
Apportioned overheads	2,650	1,750
Total cost	5,150	3,150

The Power Bank department sells its power banks to external customers at Frw 35,000 each.

The newly commissioned New Network Telecom (NNT) has placed an order of 30 power banks per month at a fixed purchase price of Frw 30,000 each. However, GTN is considering how best to meet the additional demand.

GTN has sufficient capacity to increase its monthly production to 150 power banks, except that making an extra 30 power banks would require reallocation of labour and other resources from the Avuyo department. This would reduce the Avuyo departments' output by 16 landline handsets per month.

The alternative course of action would be to buy 30 power banks from an outside supplier, add a power saving application of Frw 5,000 per power bank and supply to NNT. The supplier is willing to supply each power bank at Frw 22,000.

GCCL is at crossroads and has approached you for technical professional advice.

REQUIRED:

- (a) (i) Determine the contract price and advise the chief executive of GCCL on whether he should go ahead to recruit the men from GCWA. **(10 Marks)**
- (ii) Discuss any **two** non-financial performance measures that GCCL can use in evaluating the progress of the contract in (a) (i) above. **(4 Marks)**
- (b) (i) Prepare the feeding budget for the first term of 2017, using the activity-based. budgeting (ABB) approach, as recommended by the Gahigi report. **(17 Marks)**
- (ii) Set out the basic principles of applying activity-based budgeting system in an organisation. **(4 Marks)**
- (iii) Explain how PVS will implement the budget planning and control system. **(6 Marks)**
- (c) (i) Prepare GBL's production plan and determine estimated profit for the month of December, 2016 using throughput accounting. **(10 Marks)**
- (ii) Evaluate KBL's proposal to GBL. **(4 Marks)**
- (iii) Identify any **three** costing techniques and explain how they will solve GBL's problems. **(6 Marks)**
- (d) Evaluate BCH's new appraisal system for the year 2017. **(19 Marks)**
- (e) (i) Using the decision tree technique, advice GTN on the best course of action. **(8 Marks)**
- (ii) Advise GTN on whether to make or buy the 30 power banks ordered by NNT. **(8 Marks)**
- (iii) Discuss any **two** factors that should be considered before taking a final decision on either making or buying the power banks to fulfill the NNT order. **(4 Marks)**

(Total 100 Marks)

End of question paper

