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## **CERTIFIED PUBLIC ACCOUNTANT (CPA)**

### **ADVANCED LEVEL 2 EXAMINATIONS**

#### **A2.2: STRATEGIC PERFORMANCE MANAGEMENT**

**FRIDAY: 8 JUNE 2018**

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#### **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.

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Mutesi, Vivie and Mutoni Vero are twin sisters born of Mr. Munezero Vincent, an aged Rwandan musician and prominent importer of music electronics. The twins after completing advanced studies in music production and videography in 2012, decided to revive their father's struggling business to benefit from his public goodwill. The music industry in Rwanda during that time had gradual growth with numerous opportunities at large. As professionals in the industry, they made a 20 year development plan in which they planned to incorporate a holding company to continue with importation and also venture into music production, management of music shows, discotheque and production of wines and spirits.

Family Holdings Limited (FHL) was established in 2013 by the twins with offices located in Butare and board of directors (board) as its top management organ was instituted. FHL aims at being the market leader in offering quality products and delivering professional end-to-end excellent services for customers' experience of modern urban lifestyle. FHL's mission is to fulfill customers' dream of experiencing modern lifestyle by offering quality products and delivering excellent services. FHL strategized to develop a sustainable and professional organization dealing in music industry related businesses to strengthen brand and customer satisfaction for generation of stable income. Customer focus, leadership, integrity, collaboration and innovation form FHL's guiding core principles.

FHL is headed by executive director (ED) and is responsible for carrying out all administrative activities within the group. There are five companies owned by FHL that are headed by managers with independence to execute operational activities except financing and investing activities. Managers are allowed to implement systems that are appropriate to the smooth running of their companies. Board recommended use of business process re-engineering (BPR) to test the appropriateness of the systems used by managers and managerial performance will be measured using the return on investment (ROI) method.

### **FAMILY ELECTRONICS LIMITED (FEL)**

Family Electronics Limited (FEL) was established in 2013 during the transition period when the twins were taking over the business from their father. FEL imports electronics from China and sells goods to fellow group members and external customers through its various outlets in Rwanda.

The manager of Family Events Agency (FEA), a group member that deals in managing music concerts, plans to acquire ten sophisticated universal music systems from FEL. The annual demand for such a system has been always in the range of 90 systems and each system is sold at Frw 2.5 million on open market. However, FHL's transfer policy requires members to sell goods within the group at full cost plus 8%. Below are costs involved in importation of a single system:

Particulars	Frw '000'
Purchase price	800
Insurance and freight	200
Other variable costs	300
Overhead costs	500

Rwanda Revenue Authority (RRA) charges import taxes of 20% on such system at cost, insurance and freight (CIF) costs.

The annual demand for such systems is expected to increase by 10% during the year ending 31 May 2019 due to the visible growth in entertainment and leisure industry in Rwanda. However, manager has confirmed that because of limited financial capacity, FEL will not be in position to meet the increase in external market demand since there is an internal order.

FEL's annual fixed operational costs are Frw 10 million and corporation tax rate is 30% in Rwanda. FEL hopes to save 15% of the fixed operational costs when FEA's order is honoured whereas an extra 12% of the fixed operational costs will be paid in case the increase in external market demand is honoured.

Further, the board approved FEL's proposal to invest Frw 38.25 million in establishment of radio and television stations in Butare. The manager planned to finance the investment using internally generated profits and the implementation work was to commence in the month of June, 2019 as he anticipated to make adequate profits during the year ending 31 May, 2019.

### **GISORO DESERT CLUB (GDC)**

Gisoro Desert Club (GDC) is located in Gisoro town and was established in 2014 by FHL in fulfillment of its development plan. GDC operates a discotheque which has a restaurant and bar wings. The board is worried about GDC's cash flow situation and the external auditors have indicated that even its going concern is threatened. External auditors recommended immediate adoption of cash budgeting system to rescue GDC from its current woes. The board has instructed GDC's manager to employ cash budgets starting with the financial year ending 30 May 2019.

The extract from the previous year's financial performance indicate that revenue for the month of May 2018 was Frw 26.88 million.

The estimated sales for the first three months for the year ending 31 May 2019 are as below:

Month	Sales (Frw '000)
June	27,300
July	29,400
August	30,450

GDC has goodwill from most corporate companies around Gisoro town that have made contracts for supply of lunch to their staff. Contract terms require customers pay half of the contract price within the month of supply and the balance paid in the following month. Also customers who pay half of the contract price within the month of supply are allowed a 5% cash discount. Normally the monthly sales mix for restaurant, bar and discotheque is 4:3:3.

Sales for the restaurant and bar are always made at a mark-up of 25% on the purchase cost of goods. GDC pays half of the purchases within the month of purchase and the balance in the

following month. Similarly suppliers whose half of their supplies is paid within the month of supply give a 4% cash discount.

GDC pays monthly wages and utilities of Frw 6,500,000 in arrears but wages that constitute 70% of this cost will be increased by 10% from 1 July 2018. Also GDC rents a storeyed building at Frw 25,200,000 per annum payable in quarterly advance at the start of the month of January, April, July and December.

GDC has realised that the rent expense is increasing every year and the payment terms are not friendly which ruins its cash flows. The board resolved to acquire a five year bank loan of Frw 30 million at fixed annual interest rate of 20% to buy a plot of land in Gisoro town where a permanent home will be constructed. The loan will be disbursed in the month of June 2018 and payment of the monthly loan installments will commence in the following month after disbursement.

FHL requires all its members to contribute Frw 5 million per annum to the group which members normally pay in arrears and GDC's payment for the year ending 31 May 2018 will be made in August 2018. GDC's cash and bank balance as at 31 May 2018 was Frw 70,000.

The manager has convinced the board to open up a fixed deposit account for GDC with Bank of Kigali Limited onto which quarterly cash savings of Frw 6 million will be deposited at the beginning of each subsequent quarter. This is intended to speed up internal generation of funds for financing the construction of the permanent home which is planned to commence in five years' time.

## **TWINS SOUND STUDIO (TSS)**

Twins Sound Studio (TSS) is located in Kigali and deals in music recording with the best producers in the country. TSS has been the market leader in music production and video shooting until 2017 when Umulisa Liz opened Liza Swag Studio (LSS) also majoring in music recording. Profitability levels of TSS have been declining since then and its best producers no longer give adequate time for the work because they also work at LSS.

The manager of TSS presented the profitability performance report for year ended 31 May 2018 to the board and proposed dropping video shooting since it was making losses. Below are the extracts of financial information for the year ended 31 May 2018:

### **Profitability Statement**

	Music production	Video Shooting
	Frw '000'	Frw '000'
Revenue	58,993	69,864
Direct labour	(13,148)	(14,022)
Other variable costs	(27,853)	(34,071)
Fixed costs	(14,031)	(22,446)
Profit or Loss	3,961	(675)

#### Additional information

	Music production	Video Shooting
Number of songs	346	123
Direct labour hours per song at Frw 9,500 per hour	4	12
Machine hours per song	1	4.5
Machine capacity (kw)	145	185
Floor space (square feet)	100	100
Number of administrative staff	2	3
Other variable costs per song (Frw'000)	80.5	277

Fixed costs	Drivers	Frw '000
Electricity	Machine capacity	3,069
Depreciation	Machine capacity	1,188
Rent	Floor space	6,970
Salaries and wages	Number of administrative staff	8,760
Other operating costs	Floor space	16,490

TSS has been using machine hours to absorb fixed costs and the board resolved to employ Activity Based Costing (ABC) system. The Board noted that ABC system will provide a basis for dropping video shooting as it had been suggested by the manager.

The manager informed the board that the available workers can provide 2,676 direct labour hours since they also work for LSS and the lost hours can only be recovered by doubling the wage rate or employ expatriates who will demand the same. An additional Frw 30,000 will be charged to songs or videos produced using recovered labour hours.

The manager further revealed that doubling advertising costs may increase number of songs for music production by 12% and video shooting by 18% during the year ending 31 May 2019. Advertising costs take 20% of other operating costs. All other activities are anticipated not to change during the year given the stiff competition from LSS.

#### **FAMILY DISTILLERS LIMITED (FDL)**

Family Distillers Limited (FDL) was founded in 2015 to deal in production and selling spirit brands of Vicente whisky and Viero vodka. Board unanimously agreed to invest in spirits production basing on the available statistics revealing high consumption rate of spirits at GDC and FHL's customer loyalty. At the beginning, GDC's manager was the interim head of FDL until 2017 when the board resolved to recruit its manager after experiencing constant losses. The new manager appreciated annual turnover growth rate and attributed loss making on failure to apply appropriate cost control systems. GDC's cost control systems were similarly used in FDL even though both entities operate under different sectors. She introduced standard costing system which was considered to best suit FDL operations.

Vicento whisky made from maize is the fast moving FDL's spirit brand because of the coconut flavour.

The standard production of its litre requires the following materials:

	Quantity (kg)	Total Amount (Frw)
Maize flour	0.75	375
Molasses	0.5	400
Water	3.0	7.5
Yeast	0.25	500
Coconut flavour	0.25	287.5

FDL produced 18,000 litres of Vicente whisky in May 2018 and used the following materials:

	Quantity (kg)	Price per kg (Frw)
Maize flour	13,650	480
Molasses	8,970	840
Water	54,900	3
Yeast	4,520	2,100
Coconut flavour	4,600	1,200

Viero vodka made from banana is still staggering on the market despite being charged a lower price. FDL planned to produce and sell 32,000 litres of spirits out of which 20,000 liters were for Viero vodka during the month of May 2018 but only 18,000 litres of Viero vodka were sold.

FDL packs and sells its spirits in 750 ml bottles, a bottle of Viero vodka had been budgeted to be sold at Frw 4,800 but it was actually sold at Frw 4,500 during the month of May 2018. The budgeted sales margin for Viero vodka was 25% and actual sales margin was 20% during the month of May 2018.

### **FAMILY EVENTS AGENCY (FEA)**

Family Events Agency (FEA) is a newly incorporated company to deal in organizing music concerts and shows for both local and visiting artists in Rwanda. The board resolved to acquire a loan of Frw 200 million to finance its start-up operations.

FEA's manager has segmented artists into high popular artists (HPAs) and less popular artists (LPAs) to enable them penetrate the events management market in music industry. However, FEA is not yet decided on whether to start with HPAs and later bring on LPAs depending on the market growth or start with both HPAs and LPAs at the same time. Projections for the year ending 31 May 2019 indicate that:

- If FEA starts with HPAs only and the market growth is low, the Net Present Value (NPV) after allowing for organization costs will be Frw 30 million. If the market growth is high, FEA will either maintain HPAs only or bring in LPAs. Bringing LPAs on board would have the NPV of Frw 40 million and maintaining HPAs only would have the NPV of Frw 5 million.

- If FEA starts with both HPAs and LPAs at the same time, and the market growth is high, the NPV will be Frw 50 million. If the market growth is low, the NPV will be Frw 10 million.

According to the information obtained from the entertainment industry, there is a 70% chance of having high market growth and a 30% of low market growth.

FEA's manager is not comfortable with the information provided and has recommended the engagement of demographic and market research consultants who can provide accurate estimates of the market growth in Rwanda to guide the decisions based on perfect information.

You as a CPA graduate have been assigned to lead the consultancy team to provide the required estimates.

### **REQUIRED:**

- (a) Advise FHL's board on:
  - (i) the highly profitable option that would lead to financing of the establishment of the radio and television stations by FEL during the month of June 2019. **(8 Marks)**
  - (ii) the problem that may potentially arise from your decision in (a) (i) above affecting FHL's goal congruence and any two transfer pricing methods that may solve it. **(4 Marks)**
  - (iii) any five factors to be considered before choosing ROI as a divisional performance measure. **(5 Marks)**
- (b) Advise GDC's manager on:
  - (i) whether the quarterly cash deposit of Frw 6 million will be made at the beginning of the month September 2018. **(20 Marks)**
  - (ii) any four reasons why FHL's board recommends use of budgetary control systems. **(4 Marks)**
- (c) Using ABC system:
  - (i) evaluate the TSS' manager proposal of dropping video shooting. **(8 Marks)**
  - (ii) advise the board on whether to allow TSS double its advertising costs for the year ending 31 May, 2019. **(12 Marks)**
- (d)
  - (i) Interpret materials mix and yield variances for Vicente whisky during the month of May, 2018. **(8 Marks)**
  - (ii) Suggest any relationship between materials mix and yield variances for Vicente whisky during the month of May 2018. **(1 Mark)**

- (e) Using sales mix and quantity variances, evaluate the effect of changes in production and sales of Viero vodka on FDL's profitability performance during the month of May 2018. **(5 Marks)**
- (f) Discuss any two reasons why managers dislike using variance analysis in decision making. **(4 Marks)**
- (g) With help of a decision tree analysis, advise FEA's manager on the:
- (i) best option to choose. **(6 Marks)**
  - (ii) likely maximum price to be paid to the consultants. **(4 Marks)**
- (h) Evaluate FHL's mission statement. **(6 Marks)**
- (i) Explain the meaning of BPR and discuss the challenges experienced during its implementation. **(5 Marks)**
- (Total 100 Marks)**