FINAL EXAM IAE ROUEN Master CCA 2019 : 3h

BUDGET CASE STUDY : 15 points

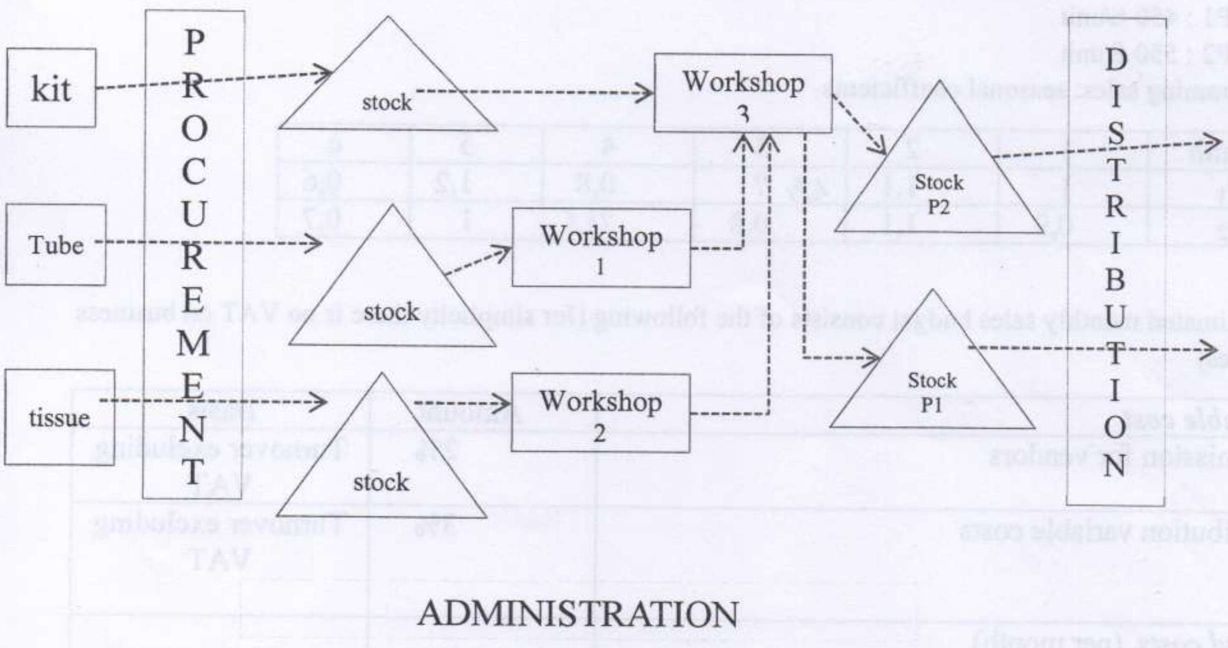
The SAPOUSS company manufactures 2 types of pushchairs :
- the classic: Sapouss GTL (reference P1)
- the active walks: the Sapouss GTI (reference P2)

You are requested to establish a budget simulation . As part of your mission you will specifically:

PART 1 : calculate data for the next year quarter 1 only

1) Determine the monthly program of sales for the next year quarter 1 only
2) Determine monthly component requirements and monthly capacity requirement. You will then compile the valuated procurement budget and the budgets of the workshops.
3) Establish monthly cash forecast for the first quarter.

Appendix 1 production process



Workshop 1: set the tube to the gauge, bending: manufacturing frames
Workshop 2: tissue preparation, cutting and finishing on model
Workshop 3: assembly for the finished products

Appendix 2: Information on forecast

- Single VAT rate: 20% (For simplicity we assume that VAT is deductible only on purchases of components)
- Terms of payment :customer credit: 20% cash, 30% after one month, 50% after 2 months
- Deadline for suppliers payment : 1 month (same for all suppliers)
- Delivery Time: 15 days
- The staff is paid in the month

- Salary charges for the employee represent 20% of gross salary, therefore net paid is equal to 80% of gross salary . Employee benefits : salary charges and the employer costs (50% of gross salary) are paid at the end of each calendar quarter
- Other expenses are paid cash in the month of consumption
- The variable remuneration of sales men are paid in the month of sale.

Sales men are paid based on a fixed monthly salary for a total of € 40 000 (all commercial and including social security charges) and a variable which corresponds to 2% of sales (the percentage represents the net amount received after tough negotiations with the sales staff).

Appendix 3: commercial forecasts

Products P1 and P2 are at different stages of their life cycle.

P1 is a mature ; P2 is in the growth phase
The executive directors have adopted the following objectives:
- For P1: zero growth (0%)
- For P2, a growth of 10%.

The volume of last half year amounted to:
- P1 for 6000 units
- P2 for 3000 units

Selling price forecast (excluding VAT sale price)
- P1 : 450 €/unit
- P2 : 550 €/unit

Programming sales: seasonal coefficients

Month	1	2	3	4	5	6
P_1	1	1,1	1,3 ?	0,8	1,2	0,6
P_2	0,9	1,1	0,8	?1,5	1	0,7

The estimated monthly sales budget consists of the following (for simplicity there is no VAT on business expenses)

Variable cost	Amount	Basis
commission for vendors	2%	Turnover excluding VAT
Distribution variable costs	3%	Turnover excluding VAT
Fixed costs (per month)		
Employee gross wages	40 000	€
Employer social charges	20 000	€
Leasing	10 000	€
other fixed costs	6 000	€
depreciation	8 000	€

Appendix 4: Data on manufacturing

41) Bills of materials

Level 1

	P_1	P_2
frame $_1$ (CAD_1)	1	0
Frame $_2$(CAD_2)	0	1
Tissue skin$_1$(HAB_1)	1	0
Tissue skin $_2$(HAB_2)	0	1
Kit	1	1
wheels$_1$ (R_1)	3	0
wheels$_2$ (R_2)	0	6

Level 2

	CAD_1	CAD_2	HAB_1	HAB_2
Tube 1(TUC_1)	5	0	0	0
Tube 2(TUC_2)	0	6	0	0
Tissue (TIS)	0	0	2,5	2

42) routines

	P_1	P_2	CAD_1	CAD_2	HAB_1	HAB_2	Time unit nature
workshop 1	30	35	0	0	0	0	Machine hour
Workshop 2	0	0	50	60	0	0	Machine hour
Workshop 3	0	0	0	0	20	25	Labor hour

Note: times are expressed in hundredths of hours

43) Monthly manufacturing budgets

	Workshop 1	Workshop 2	Workshop 3
Variable cost per unit	30€	40€	5€
depreciation	10 000€	15 000€	
Gross Wages	25 000€	45 000€	30 000€
Employer social charges	12 500€	22 500€	15 000€
Cost Driver	Machine hour	Machine hour	Labour hour
Max Capacity (unit =CD)	550	1 000	500
Normal capacity (unit = CD)	500	750	450

Note: for simplicity there is no VAT charges excluding purchases of industrial components

44) Inventories

Stocks of finished goods

- The opening inventory of P1 and P2 is equal to 100 units.each and represents the initial stock (IS) for the first month
- The Final Stock (FS) of each month is equal for both items to 5% of sales the following month.
- There is no stock of intermediate products, the only items stored are finished products and components purchased.

Component stocks

- The initial stock (IS) of the first month are all equal to zero.
- The rule of supply is the same for all references purchased: Inventories at the end of the month will be equal to 50% of the consumption of the following month.

45) Purchase price of raw materials

Component reference	Budgeted purchase price	Unit of measure
TUC_1	5 €	m
TUC_2	7 €	m
Tissue	40 €	m^2
Kit	55 €	unit
$Wheels_1$ (R_1)	10 €	lot
$Wheels_2$ (R_2)	12 €	lot

Appendix 5: Monthly Administration Budget

It includes:

Gross wages	25 000 €
Employer social charges	12 500 €
Depreciation (on IT equipment)	3 000 €

Appendix 6 : initial Balance sheet

Assets	Gross Values	D	Net Book Values	Liabilities	Net book values
Fixed assets	4 600 000	1 188 250	3 411 750	equity	2 500 000
Inventoriess					
components	0		0	Financial Liabilities (2)	1 611 000
Finished goods	75 250		64 250	Account payables (3)	295 000
Account receivable (1)	825 000		825 000		
Cash	94 000		94 000		
Total			4 406 000	Total	4 406 000

(3) Note: for simplicity, inventories in the balance sheet are recorded at their purchase price regarding the components and their standard costs regarding finished products.

(1) of which

Month 1	
Month 2	

(2) the account breakdown is as follows:

Debts over 6 months:	1 361 000
Debts less than 6 month (repayment at the end of month 3) :	250 000
Expense on the capital remaining due for the next 3 months (payable end of month 3) :	23 440

Glossary:

- CD	**cost driver**
- IS	**initial stock**
- FS	**final stock**
- VAT	**Value Added Tax**
- Gross Wages	**= net wages + employee social contribution**
- employee social contribution = 0, 2 * Gross wages	

- employer contribution (or employer social charges) = 0,5 Gross Wages

- total of social contributions =

PAERT 2 : Scorecards 5 points

Rael company produces a large range of scanners in a manufacturing site very automated. The production costs are mainly fixed and the company is on a market where the competition is very strong. It has to be underlined that the technical differenciation of the products is poor and the prices between competitors very similar.

The executive committee has defined that the key success factors on this market were the quality of the products and a low cost of goods. The different studies highlight that the focus put on these two items would ease to achieve the profitability target requested by the shareholders.

The action plan for 200N states an improvement of the quality and cost of goods by a higher yield in production and a drastic reduction of defaults and material scraps. A key point in the action plan will be the training of operators and the set up of a « suggestion box » so that the basis of the production process can be improved.

The executive committee has analysed that a high proportion of products cannot be sold due to their poor reliability, which ,as a consequence, has significantly increased the level of inventory. The committee believes that a better yield would help to reduce the capacity of production and the associated means.

However, the reduction of costs will not automaticaly result from a better yield as the structure of costs are mainly fixed. In that perspective, only a policy of staff reduction and selling redundant equipment would enable to achieve this result. It appears more interesting to the committee to use the free capacity in production for selling high performance scanners, either in their current configuration or with some improvements.

The balanced scorecard for Rael Company in year 200N is as follows :

OBJECTIVES	INDICATORS	TARGET	ACTUALS
AXIS FINANCE			
Increase of the shareholder value	Change in profit coming from the change in productivity	2 000 000	800 000
	Change in profit resulting from the sales growth	3 000 000	1 200 000
AXIS CUSTOMER			
Increase of the market share	Market share of scanners	5%	4.5%
AXIS INTERNAL PROCESSES			
Improvement of the quality of production	Yield rate	80%	83%
Reduction of the supply leadtime to customers	Average supply leadtime of a customer order	27 days	24 days
AXIS LEARNING ORGANISATION and INNOVATION			
Improvement of the skills for production operators	% operators trained to quality and production processes	91%	93%
Improvement of the information system	Rate of production transactions with a real time feedback	80%	81%

Based on those datas, analyse the following questions :

1. **Has this company achieved its strategic objectives in year 20N ? Explain why?**
2. **Did the implemented balanced scorecard help the executives to understand why the market share target has not been achieved ? Would additional indicators be required to complete the customer axis ? Which ones?**
3. **More globally, what are the main issues faced by Rael company in meeting their strategic objectives . Indicate to the executive team the key items which are missing in the balanced scorecard.**