Case Study 05: Comprehensive Budgeting

The organization manufactures two products, "A" and "B", utilizing identical raw materials and employing laborers with equivalent skill levels. To prepare budgets for the upcoming year (N+1), the following data has been prepared:

Product	**A**	**B**
raw materials Kgm	03	04
Direct labor (hours)	02	06

The commercial department estimated the selling price of product "A" at 600 units and product "B" at 1000 units. As for the purchase price of raw material, the procurement department set it at 30 units per kilogram.
The sales forecast program for the year N+1, based on market data and sales managers' estimates, determined the following

Quarter	**A**	**B**
1	1800	1400
2	1900	1300
3	2400	1900
4	1900	1800

- The inventory policy implemented by the organization provided estimates for the following year :

Unit: Kgm

inventory / Quarter	raw materials		A		B	
	Opening	**Ending**	**Opening**	**Ending**	**Opening**	**Ending**
1	3800		500	600	400	
2	4100			800	400	
3	4700			600	600	
4	4200	3900		700	600	500

- The hourly wage rate is set at 60 DZD and selling and administrative expenses account for 15% of the sales figure. As for the general manufacturing expenses allocated based on direct labor hours, they were estimated (including 100,000 DZD in depreciation for each quarter):

Quarter	**1**	**2**	**3**	**4**
Amounts	470900	470900	470900	470900

To prepare the cash budget, the following estimates are available:

- Cash balance at the beginning of the period: 150,000 DZD.
- Sales are distributed as follows: 75% within the same quarter and the remainder in the following quarter.
- Purchases: One-third is paid in the current quarter and the remaining two-thirds in the subsequent quarter.
- Customer receivables as of 31/12/N amount to 835,000 DZD, and accounts payable to suppliers amount to 190,000 DZD.
- Regarding wages, other manufacturing expenses, distribution, and administrative expenses, they are paid in the quarter incurred.
- The investment budget involves acquiring a machine for 1,000,000 DZD in April. Initially, 20% of the investment amount is paid in April as an advance. Then, the remainder is paid after delivery, with 50% in September and 30% in December.
- The amount of bank loans appearing in the balance sheet as of 31/12/N is 2,000,000 DZD. Half of it is repaid during the fiscal year in four equal depreciation installments at the end of each quarter with an interest rate of 10%.
- Dividends of 80,000 DZD are distributed in July.
- The profit tax rate is 30%. Profit taxes for year N are estimated at 750,000 DZD and are paid in the first quarter of the following year.

The required tasks include:

1. Sales budget for the four quarters.
2. Production budget for the four quarters.
3. Consumption budget for the four quarters.
4. Direct labor budget for the four quarters.
5. Total and per unit manufacturing cost budget for the next year.
6. Cash budget for the four quarters.
7. Estimation of the financial result for the next year.

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