

Budgeting Analysis

Incognito inc. would like to plan its activity for the next 6 months. It expects that its sales quantity will growth by 5% in each of the next 6 months since it has entered a new market recently. Hence, it wants to make a budget for its production and all the required expenses to meet the expected sales growth. Incognito will sell two of its key products i.e., product A and B and both products sales will grow at the same rate of 5% per month.

Sales and Production Budget

Starting at 3 million and 1.10 million in sales quantity for A and B respectively in month 1, sales quantity of A and B will grow to 3.15M and 1.16M units in month 2, 3.31M and 1.21M in month 3, 3.47 and 1.27 in month 4, 3.65M and 1.34M in month 5 and 3.83M and 1.40M in month 6. With a desired 1% ending finished good inventory quantity, the total required production needs are 4.14M, 4.31M, 4.52M, 4.75M, 4.99M and 5.24M in each of the subsequent months. Of these quantities, A product therefore represent 73.2% (3M /4.1M) of the total quantity and B the remaining 26.8%. Additionally, the firm expects to collect 90% in the month of sales, 5% in the following month and 5% two months later. Thus, the table below shows the account receivable schedule for the next 6 months for both A and B.

Sales collection schedules	1	2	3	4	5	6
Account receivables, beginning						
Sales collected in cash or within the same month	25,56	26,84	28,18	29,59	31,07	32,62
Sales collected in the month after sales		1,42	1,49	1,57	1,64	1,73
Sales collected two months after sales			1,42	1,49	1,57	1,64
Total cash collections	25,56	28,26	31,09	32,65	34,28	35,99

Raw Material, Direct Labor and Overhead, and Finished Goods Budget

The firm desires a 10% ending inventory for its raw material; hence, product A which contains 1.5kg of RM per unit will require 5000 tones (4.14 x 73.2% x 1.5 x (1+10%)) and product B which contains only 0.5kg per unit will require 0.61 tone. The firm plans to pay 80% of its RM in the month of purchase, 10% in the following month and 10% two months later. In addition, it takes 1.02 minutes per unit of A and 0.30 minute per unit of B. The number of workers per machine is 5 for product A and 2 product B and each worker is paid \$14/h. This is then multiplied by the number of units of required production including desired ending inventory to find the direct labor hour's needs. Hence, the total direct labor costs are estimated at \$3,72M in month 1, \$3.91M in month 2, \$4.11M in month 3, \$4.31M in month 4, \$4.53M in month 5 and \$4.75M in month 6. The fixed overhead production costs are depreciation costs of \$0.04M and property taxes of \$0.025M. The overhead rate for variable costs is estimated at \$5 per DL hour. Thus, the table below shows the account payable schedule for the next months and the total DL and overhead costs.

RM payment schedule	1	2	3	4	5	6
Accounts payable, beggining balance						
RM paid cash or within the month of purchase	8,34	7,92	8,32	8,74	9,17	9,63
RM paid in the month after purchase		1,04	0,99	1,04	1,09	1,15
RM paid two months after purchase			1,04	0,99	1,04	1,09
Total cash disbursement for RM	8,34	8,96	10,35	10,77	11,31	11,87

	Months					
Direct labor budgeting	1	2	3	4	5	6
Direct labor costs per worker (in 1 euro)	3724000,00	3910200,00	4105710,00	4310995,50	4526545,28	4752872,54
Total DL costs (in M)	3,72	3,91	4,11	4,31	4,53	4,75

Overhead budgeting	1	2	3	4	5	6
Total variable overhead costs	0,28	0,30	0,31	0,33	0,34	0,36
Total fixed overhead costs	0,07	0,07	0,07	0,07	0,07	0,07
Total overhead costs	0,35	0,36	0,38	0,39	0,41	0,43

These calculations lead to the estimated unit FG cost of \$2.24 (of which \$2 of RM and \$0.24 of DL) and \$0.77 (of which \$0.70 of RM and \$0.7 of DL) for A and B respectively. These unit prices are then multiplied by the desired FG ending inventory discussed during the Sales budget to find the FG ending inventory value for the next 6 months given as follows: \$ 0.08M, \$0.08M, \$0.08M, \$0.09M, \$0.09M, and \$0.10M. The SGA budgeting suggest the following expenses for the next 6 months: \$10.07M, \$10.82M, \$11.58M, \$12.35M, \$13.14M and \$13.95M.

Pro-forma Statements and Conclusions

Subsequently, we forecasted the pro-forma balance sheets, cashflows and income statements of Incognito inc.

Cash budgeting	1	2	3	4	5	6
Cash balance, beginning						
Add receipts:						
Cash from sales	25,56	28,26	31,09	32,65	34,28	35,99
Total cash available	25,56	28,26	31,09	32,65	34,28	35,99
Less disbursements:						
Total costs of RM	10,43	9,90	10,40	10,92	11,47	12,04
Total costs of DM	3,72	3,91	4,11	4,31	4,53	4,75
Total costs of Overhead	0,31	0,32	0,34	0,35	0,37	0,39
Total Selling and administration expenses	10,03	10,78	11,54	12,31	13,10	13,91
Total operating expenses	24,48	24,90	26,38	27,90	29,47	31,09
Equipement piurchases						
Capital expenditures						
Dividends						
Total disbursements	24,48	24,90	26,38	27,90	29,47	31,09
Excess(deficiency) of cash available over disb.	1,08	3,35	4,71	4,75	4,81	4,91
Financing						
Borrowings						
Repayments						
Interest						
Total financing cash						
Cash balance, ending	1,08	3,35	4,71	4,75	4,81	4,91

Profit & Loss budgeting	1	2	3	4	5	6
Contribution P&L						
Sales	28,4	29,82	31,311	32,87655	34,52038	36,2464
- Commission	0,00	0,00	0,00	0,00	0,00	0,00
Net sales	28,40	29,82	31,31	32,88	34,52	36,25
Costs of good solds	14,46	14,13	14,84	15,58	16,36	17,18
Variables selling expenses	4,00	4,50	5,00	5,50	6,00	6,50
Variable administrative expenses	5,00	5,25	5,51	5,79	6,08	6,38
Contribution margin	4,94	5,94	5,96	6,00	6,08	6,19
Gross profit	13,94	15,69	16,47	17,29	18,16	19,07
Fixed selling costs	0,040	0,040	0,040	0,040	0,040	0,040
Fixed administrative costs	1,03	1,03	1,03	1,03	1,03	1,03
Net operating margin	3,88	4,88	4,89	4,94	5,02	5,12
- S&A expenses	10,07	10,82	11,58	12,35	13,14	13,95
Operating income	3,88	4,88	4,89	4,94	5,02	5,12
- Interest expenses						
Income before tax	3,88	4,88	4,89	4,94	5,02	5,12
- income tax @ 25%	-0,97	-1,22	-1,22	-1,23	-1,25	-1,28
Net income	2,91	3,66	3,67	3,70	3,76	3,84

Balance Sheet budgeting	1	2	3	4	5	6
ASSETS						
Cash	1,08	3,35	4,71	4,75	4,81	4,91
Accounts receivable	1,42	2,91	3,06	3,21	3,37	3,54
Raw materials inventory	0,06	0,06	0,06	0,06	0,07	0,07
Finished goods inventory	0,08	0,08	0,08	0,09	0,09	0,10
Total current assets	2,63	6,40	7,91	8,11	8,34	8,61
Property, plant and equipment, net						
Insurance	1,00	1,00	1,00	1,00	1,00	1,00
Total fixed	1,00	1,00	1,00	1,00	1,00	1,00
Total assets	3,63	7,40	8,91	9,11	9,34	9,61
LIABILITIES						
Accounts payables	1,04	2,03	2,03	2,13	2,24	2,35
Interest payables						
Current liabilities	1,04	2,03	2,03	2,13	2,24	2,35
Long term debt						
Non current liabilities	0,00	0,00	0,00	0,00	0,00	0,00
Capital	(0,32)	1,71	3,21	3,27	3,34	3,42
Retained earnings	2,91	3,66	3,67	3,70	3,76	3,84
Total owners' equity	2,58	5,37	6,88	6,98	7,10	7,26
Total liabilities and owners' equity	3,63	7,40	8,91	9,11	9,34	9,61