

The Direct Labor (DL) Budget for Q1...



The process is easier as we don't have to worry about any inventory...

Direct Labor:

0.05 hours per case @ \$22 per hour

Everything else (benefits, supervisors, etc.) will go into MOH

The Direct Labor Budget for Q1...

*This also becomes
part of the COGS*

Bolder Blue Chips LLC Direct Labor Forecast For the Quarter Ending March 31				
	Month			1st Quarter Total
	January	February	March	
Production Requirement (Cases)	29,000	20,500	25,700	75,200
Direct Labor Hours per Case	0.05	0.05	0.05	0.05
Total Direct Labor Hours:	1,450	1,025	1,285	3,760
Direct Labor Rate:	\$22	\$22	\$22	\$22
Total Direct Labor Expense:	\$31,900	\$22,550	\$28,270	\$82,720

Manufacturing Overhead...

Now we consider the MOH...

This we would calculate from all the MOH associated with Variable Costs:

- Indirect Materials (Salt, Oil, etc.)
- Indirect Labor (the variable portion, like Packaging folks, Taste-Testers!)
- Variable utility costs associated with Production (e.g., natural gas...)

And all the MOH associated with Fixed Costs:

- Equipment Depreciation
- Insurance and Property Taxes associated with the Facility
- Indirect Labor (the fixed portion, like Supervisors and QC folks)
- Fixed utility costs associated with Production (e.g., facility rent)

The MOH Budget for Q1...

*This also becomes
part of the COGS*

Bolder Blue Chips LLC Manufacturing Overhead Forecast For the Quarter Ending March 31				
	Month			1st Quarter Total
	January	February	March	
Production Requirement (Cases)	29,000	20,500	25,700	75,200
Variable MOH Costs:				
Other Indirect Materials (@ \$1.25 / case)	\$36,250	\$25,625	\$32,125	\$94,000
Other Indirect Labor (@ \$0.75 / case)	\$21,750	\$15,375	\$19,275	\$56,400
Utilities (@ \$0.50 / case)	\$14,500	\$10,250	\$12,850	\$37,600
Total Variable MOH:	\$72,500	\$51,250	\$64,250	\$188,000
Fixed MOH Costs:				
Equipment Depreciation	\$10,000	\$10,000	\$10,000	\$30,000
Factory Insurance & Property Taxes	\$3,000	\$3,000	\$3,000	\$9,000
Indirect Labor	\$15,000	\$15,000	\$15,000	\$45,000
Utilities	\$2,000	\$2,000	\$2,000	\$6,000
Total Fixed MOH Costs:	\$30,000	\$30,000	\$30,000	\$90,000
Total Manufacturing Overhead:	\$102,500	\$81,250	\$94,250	\$278,000

Cost per Unit and the COGS...

COGS is the cost of the product sold, which excluding inventory.
We must determine manufacturing cost on a unit basis.
Therefore, one more step to go...

$$\begin{array}{|c|} \hline \text{\# of Unit Sales} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Manufacturing Cost} \\ \hline \text{per Unit} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Cost of Goods Sold} \\ \hline \text{(COGS)} \\ \hline \end{array}$$

We now know the forecast sales volume.

We also know all the costs associated with producing that sales volume:

- Direct Materials
- Direct Labor
- Manufacturing Overhead

Time to calculate unit cost.

The Manufacturing Cost per Unit Calculation...

Bolder Blue Chips LLC Manufacturing Costs Forecast For the Quarter Ending March 31		
		Cost per Case
Direct Materials (5 pounds @ \$1.50 / pound)		\$7.50
Direct Labor Hours (0.05 hours per case @ \$22 / hour)		\$1.10
Variable MOH Costs:		
Other Indirect Materials (\$1.25 per case)	\$1.25	
Other Indirect Labor (\$0.75 per case)	\$0.75	
Variable Utilities (\$0.50 per case)	\$0.50	
Total Variable Costs (per Case)		\$2.50
Fixed MOH Costs (\$30,000 per month x 12 months)	\$360,000	
Forecast Total Production Volume for the Year (Cases)	400,000	
Total Fixed MOH (per Case)		\$0.90
Cost per Case:		\$12.00

The Top Line Budget for Q1...

Bolder Blue Chips LLC Revenues and COGS For the Quarter Ending March 31				
	Month			1st Quarter Total
	January	February	March	
Sales Forecast (Cases)	30,000	20,000	25,000	75,000
Sales Revenues (@ \$20/case)	\$600,000	\$400,000	\$500,000	\$1,500,000
Cost of Goods Sold (@ \$12/case)	\$360,000	\$240,000	\$300,000	\$ 900,000
Gross Profit	\$240,000	\$160,000	\$200,000	\$ 600,000

The gross profit is what covers the remaining costs of the business.

Time to look at those now...

The Operating Expenses Budget for Q1...

Now its time to roll-up all the other expenses in the organization:

- Marketing & Sales
- Engineering & R&D
- Other Operating OH
 - ✓ Office Rent
 - ✓ Office Utilities
 - ✓ Office Staff Salaries
 - ✓ Phone / Internet
 - ✓ ...



The Operating Expenses Budget for Q1...

Bolder Blue Chips LLC Operating Expenses For the Quarter Ending March 31				
	Month			1st Quarter Total
	January	February	March	
Sales Forecast (Cases)	30,000	20,000	25,000	75,000
Variable Operating Costs:				
Sales Commissions (@ \$1.50 / case)	\$45,000	\$30,000	\$37,500	\$112,500
Shipping Expense (@ \$2.00 / case)	\$60,000	\$40,000	\$50,000	\$150,000
Total Variable Operating Expenses:	\$105,000	\$70,000	\$87,500	\$262,500
Fixed Operating Expenses:				
Salaries	\$20,000	\$20,000	\$20,000	\$60,000
Office Rent	\$4,000	\$4,000	\$4,000	\$12,000
Depreciation	\$6,000	\$6,000	\$6,000	\$18,000
Advertising	\$2,000	\$2,000	\$2,000	\$6,000
Telephone & Internet	\$1,000	\$1,000	\$1,000	\$3,000
Total Fixed Operating Expenses:	\$33,000	\$33,000	\$33,000	\$99,000
Total Operating Expenses	\$138,000	\$103,000	\$120,500	\$361,500

The Pro Forma Income Statement...

Now we roll everything up into our financial forecast for the quarter...

Now its time to roll-up all the other expenses in the organization:

- Revenues
- COGS
- Gross Profit
- Operating Expenses
- Everything Else
- Taxes
- Net Income



The Pro Forma Income Statement for Q1...

Bolder Blue Chips LLC Pro Forma Income Statement For the Quarter Ending March 31				
	Month			1st Quarter Total
	January	February	March	
Sales Forecast (Cases)	30,000	20,000	25,000	75,000
Sales Revenues (@ \$20/case)	\$600,000	\$400,000	\$500,000	\$1,500,000
Cost of Goods Sold (@ \$12/case)	\$360,000	\$240,000	\$300,000	\$ 900,000
Gross Profit	\$240,000	\$160,000	\$200,000	\$ 600,000
Operating Expenses	\$138,000	\$103,000	\$120,500	\$361,500
Operating Income	\$102,000	\$57,000	\$79,500	\$238,500
Interest income (Expense)	\$0	\$0	\$0	\$0
Income Before Taxes	\$102,000	\$57,000	\$79,500	\$238,500
Taxes (@ 21%)	\$21,420	\$11,970	\$16,695	\$50,085
Net Income	\$80,580	\$45,030	\$62,805	\$188,415

When Reality hits the Plan...

Ok, we have the financial plan for the year...now what?

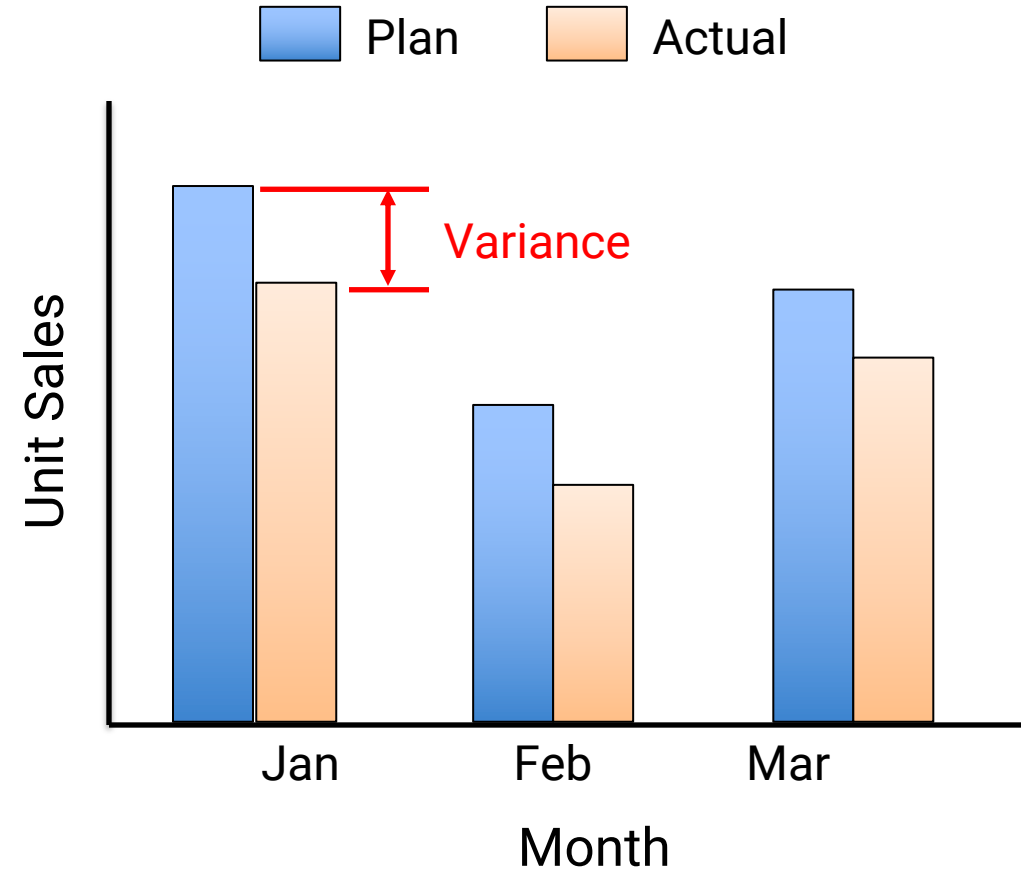
Each month and each quarter, actual results are compared to the "Plan".

Differences are either positive variances or negative variances.

Management digs in to uncover what led to the variance...

And either adjusts the future forecasts, or makes more operational changes:

- reduces/increases operating expenses
 - engineering costs
 - increases marketing



Main Takeaways...

The Budget Process is essentially a Planning Process, resulting in actions and metrics for the rest of the organization.

The Master Budget is the Pro Forma Income Statement that addresses all aspects of the organization – from operations through the departmental (cost center) expenses.

Operating Budgets include those elements for building the Pro Forma Income Statement:

- Direct Materials & Labor
- Manufacturing OH
- Operating Expenses

Actual results are then compared to the Plan on a monthly basis;; any “variance” is addressed through revising the plan or other actions.

Next Time...

Budgeting for Cost Centers



Credits & References

Slide 9: Business woman using calculator and laptop for do math finance on wooden desk in office and business working background, tax, accounting, statistics and analytic research by Natee Meepian, Adobe Stock (241497333.jpeg).

Slide 10: Businessman or accountant hand working on calculator to calculate financial data report, accounting document and laptop computer at office, business by PaeGAG, Adobe Stock (426607280.jpeg).

Slide 14: Group Of Technicians Working In Laboratory by micromonkey, Adobe Stock (61324881.jpeg).