Handout Resources

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Balance Sheet – Spectrum MFG

SPECTRUM MANUFACTURING COMPANY
Balance Sheet (000's)

		Year x1	Year x2	Year x3	Year x4	Year x5
1	**ASSETS**					
2	Cash	$102	$76	$69	$33	$85
3	Accounts Receivable	669	688	661	756	654
4	Inventory	1,116	1,109	1,250	1,059	1,217
5	Prepaid Expenses	105	97	99	88	93
6	**Total Current Assets**	**$1,992**	**$1,970**	**$2,079**	**$1,936**	**$2,049**
7	Land & Building	1,085	1,540	1,560	1,600	1,600
8	Vehicles	104	129	138	165	165
9	Equipment	576	866	883	900	920
10	Furniture & Fixtures	89	118	129	176	186
11	**Gross Fixed Assets**	**$1,854**	**$2,653**	**$2,710**	**$2,841**	**$2,871**
12	Less Accumulated Dep.	-682	-828	-978	-1,154	-1,337
13	**Net Fixed Assets**	**$1,172**	**$1,825**	**$1,732**	**$1,687**	**$1,534**
14	**TOTAL ASSETS**	**$3,164**	**$3,795**	**$3,811**	**$3,623**	**$3,583**
15	**LIABILITIES & EQUITY**					
16	Notes Payable - Bank	$211	$656	$599	$619	$589
17	Accounts Payable	558	630	691	764	750
18	Accrued Expenses	203	188	191	170	180
19	**Total Current Liabilities**	**$972**	**$1,474**	**$1,481**	**$1,553**	**$1,519**
20	**Long-Term Debt**	814	903	876	614	599
21	**TOTAL LIABILITIES**	**$1,786**	**$2,377**	**$2,357**	**$2,167**	**$2,118**
22	Common Stock	250	250	250	250	250
23	Retained Earnings	1,128	1,168	1,204	1,206	1,215
24	**EQUITY**	**$1,378**	**$1,418**	**$1,454**	**$1,456**	**$1,465**
25	**TOTAL LIABILITIES & EQUITY**	**$3,164**	**$3,795**	**$3,811**	**$3,623**	**$3,583**

Income Statement – Spectrum MFG

SPECTRUM MANUFACTURING COMPANY
Income Statement (000's)

		Year x1	Year x2	Year x3	Year x4	Year x5
1	**SALES**	**$8,100**	**$7,500**	**$7,600**	**$6,800**	**$7,100**
2	Cost of Goods Sold	-5,468	-5,070	-5,252	-4,658	-4,920
3	**GROSS PROFIT**	**$2,632**	**$2,430**	**$2,348**	**$2,142**	**$2,180**
4	**OPERATING EXPENSES**					
5	Owners Salary	$90	$70	$50	$50	$50
6	Other Salaries	778	673	620	515	508
7	Commissions	405	375	380	340	350
8	Salary Related Expense	316	298	262	226	220
9	Advertising	83	75	72	70	67
10	Bad Debts	22	16	19	11	18
11	Business Taxes & Licenses	80	76	77	69	73
12	Depreciation	105	146	150	176	183
13	Insurance	95	94	96	102	105
14	Legal & Accounting	21	23	22	26	24
15	Maintenance & Repair	59	51	60	63	65
16	Office Expense	25	23	24	22	23
17	Telephone & Utilities	129	135	143	149	158
18	Travel & Entertainment	54	40	41	49	52
19	Vehicle Expense	47	49	52	61	64
20	Other Admin Expenses	81	77	83	79	80
21	**TOTAL OPERATING EXPENSES**	**($2,390)**	**($2,221)**	**($2,151)**	**($2,008)**	**($2,040)**
22	**OPERATING PROFIT**	**$242**	**$209**	**$197**	**$134**	**$140**
23	Interest Expense	-116	-162	-155	-131	-129
24	**NET PROFIT BEFORE TAX**	**$126**	**$47**	**$42**	**$3**	**$11**
25	Income Tax	-32	-7	-6	-1	-2
26	**NET PROFIT AFTER TAX**	**$94**	**$40**	**$36**	**$2**	**$9**

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Sample Industry Averages

	500m-2mm		2-10MM		10-50MM	50-100MM		ALL	ASSET SIZE
	29		79		22	4		134	NUMBER OF STATEMENTS
	%		%		%			%	ASSETS
	6.9		10.4		11.3			9.7	Cash & Equivalents
	29.7		29.3		27.3			29.1	Trade Receivables - (net)
	31.6		27.3		27			28	Inventory
	1.9		1.4		0.7			1.4	All Other Current
	70		68.4		66.3			68.2	Total Current
	24.6		21.9		26.4			23.4	Fixed Assets (net)
	0.1		0.5		1.5			0.6	Intangibles (net)
	5.3		9.3		5.9			7.8	All Other Non-Current
	100		100		100			100	Total
									LIABILITIES
	11.5		9.7		2.1			8.7	Notes Payable – Short –Term
	2.2		3.6		1.9			3	Cur. Mat-L/T/D
	21.8		16		13.7			16.7	Trade Payables
	0.7		1.2		1.6			1.1	Income Taxes Payable
	8.6		8.7		7.6			8.6	All Other Current
	44.8		39.3		27			38.1	Total Current
	15.5		13.3		16.1			14.1	Long-Term Debt
	0.1		0.7		1.7			0.9	Deferred Taxes
	2.8		2.5		2.1			2.5	All Other Non-Current
	36.7		44.2		53.1			44.5	Net Worth
	100		100		100			100	Total Liabilities & Net Worth
									INCOME DATA
	100		100		100			100	Net Sales
	30.1		32.2		36.1	4		32.6	Gross Profit
	27		28.3		27.8			28.1	Operating Expenses
	3.1		3.9		8.3			4.5	Operating Profit
	1.1		0.7		0.6			0.8	All Other Expenses (net)
	2		3.1		7.7	5		3.8	Profit Before Taxes
									RATIOS
	2.4		2.8		3.2			2.8	
	1.5		1.9		2.4	1		1.9	Current
	1.2		1.4		2.1			1.4	
	1.4		1.6		1.8			1.6	
	0.8		1.1		1.3	2		1.1	Quick
	0.6		0.7		1			0.7	
25	14.8	**36**	10.5	**45**	8.1		**36**	10.1	
43	8.5	**44**	8.3	**54**	6.8	12,11	**46**	7.9	Sales/Receivables
55	6.6	**55**	6.6	**63**	5.8		**56**	6.5	
37	9.9	**45**	8.2	**72**	5.1		**48**	7.6	
59	6.2	**66**	5.5	**89**	4.1	10,9	**69**	5.3	Cost of Sales/Inventory
89	4.1	**87**	4.2	**107**	3.4		**91**	4	
29	12.8	**25**	14.7	**25**	14.8		**25**	14.5	
41	8.9	**34**	10.8	**37**	9.9	14,13	**36**	10.1	Cost of Sales/Payables
60	6.1	**47**	7.8	**65**	5.6		**51**	7.2	
	6.6		4.9		3.4			4.9	
	11.7		7.6		5.3			6.8	Sales/Working Capital
	21.5		13.3		6.7			13.3	
	4.4		10.4		36.2			9.9	
(28)	2.4	**(74)**	3.5	**(20)**	9.4		**(125)**	3.8	EBIT/Interest
	1.1		1.3		3.4			1.6	
	4.8		8		16			9.7	
(17)	2.4	**(55)**	4.5	**(19)**	8.7		**(95)**	4.5	Net Profit + Depr., Dep.,
	1.7		1.6		2.3			1.8	Amort./Cur.Mat. L/T/D
	0.3		0.2		0.3			0.3	
	0.6		0.4		0.5			0.5	Fixed/Worth
	1.7		0.7		0.9			0.9	
	1		0.6		0.5			0.6	
	2		1.3		0.8	3		1.3	Debt/Worth
	4.4		2.5		2.2			2.5	
	45		26.9		33			30	
(28)	14.2	**(76)**	16.4		26.5	7	**(130)**	17.5	% Profit Before Taxes/
	1.8		6.2		18.1			6.5	Tangible Net Worth
	9		13.5		17			14.5	
	3.9		8.1		14.2	6		8	% Profit Before Taxes/
	0.8		1.9		10			2.4	Total Assets
	26.3		23.9		9.7			21.8	
	13.4		13.3		7.4			11	Sales/Net Fixed Assets
	7.4		7.3		5.2			6.4	
	3.2		2.8		2.2			2.8	
	2.6		2.3		1.9	8		2.3	Sales/Total Assets
	2.1		1.9		1.5			1.8	
	3.3		2.4					2.9	
(15)	4.6	**(25)**	3.5				**(40)**	4.1	% Officers', Directors'
	8.7		4.9					6.4	Owners' Comp./Sales
	40933M		871621M		564243M	2037859M		Net Sales ($)	
	16343M		449505M		286023M	1000819M		Total Assets ($)	

M = $thousand MM = $million

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Business Cash Flow Essentials

Lesson 3 Resources

Ratio Analysis Worksheet

SOLVENCY RATIOS	Formula	Calculations	Company	Industry *(Target)*
1. Current	Current Assets / Current Liabilities	=		
2. Quick	Cash + Accts Receivable / Current Liabilities	=		
SAFETY RATIO				
3. Debt to Equity	Total Liabilities / Equity	=		
PROFITABILITY RATIOS				
4. Gross Profit Margin	Gross Profit / Sales	=	%	%
5. Operating Profit Margin	Operating Profit / Sales	=	%	%
6. Return on Assets (ROA)	Net Profit Before Tax / Total Assets	=	%	%
7. Return on Investment (ROI)	Net Profit Before Tax / Equity	=	%	%
ASSET MANAGEMENT RATIOS				
8. Sales to Assets	Sales / Total Assets	=		
9. Inventory Turnover (x)	Cost of Goods Sold / Inventory	=	X	X
10. Inventory (Days)	365 days / Inventory Turnover	365 Days =	Days	Days
11. A/R Turnover (x)	Sales / Accounts Receivable	=	X	X
12. Collection Period (Days)	365 Days / A/R Turnover	365 Days =	Days	Days
13. A/P Turnover (x)	Cost of Goods Sold / Accounts Payable	=	X	X
14. A/P (days)	365 days / Accounts Payable Turnover	365 Days =	Days	Days

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Business Cash Flow Essentials

Lesson 3 Resources
Ratio Analysis Details

CURRENT RATIO

Determined by dividing Current Assets by Current Liabilities

MEANING

If the ratio is 1.35, that means there is $1.35 in current assets to pay every $1.00 in current liabilities

WHY YOU CARE

A low current ratio indicates low solvency for the business

POSSIBLE CAUSES OF A LOW CURRENT RATIO

- **Current liabilities are too high**
- **Using short term funds (current liabilities) to fund long term assets**

POTENTIAL SOLUTIONS

- **Move some short term liabilities to long term**
- **Sale/leaseback some of the fixed assets**

QUICK RATIO

Determined by dividing (Cash + Accounts Receivable) by Current Liabilities

MEANING

If the ratio is 0.49, that means there is $0.49 in quick (liquid) assets to pay every $1.00 in current liabilities

WHY YOU CARE

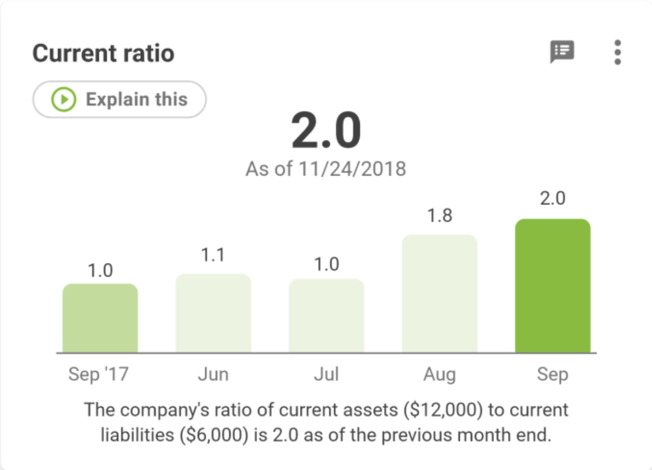
A low quick ratio indicates low safety for the business

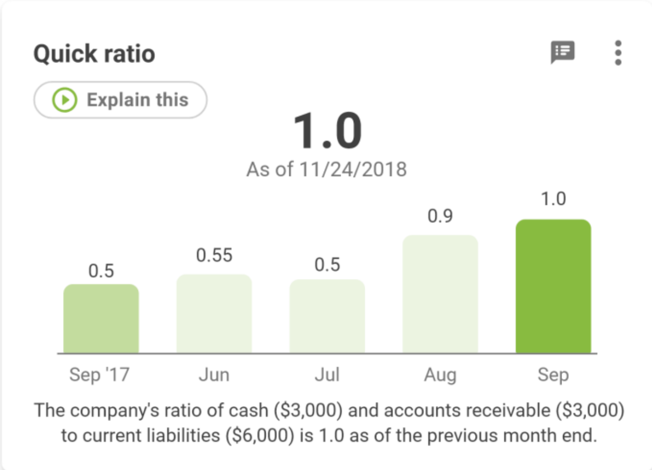
POSSIBLE CAUSES OF A LOW QUICK RATIO

- **Current liabilities are too high**
- **Using short term funds (current liabilities) to fund long term assets**
- **Inventory is too high**

POTENTIAL SOLUTIONS

- **Move some short term liabilities to long term**
- **Sale/leaseback some of the fixed assets**
- **Reduce inventory**





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Lesson 3 Resources
Ratio Analysis Details

DEBT TO EQUITY

Determined by dividing Total Liabilities by Equity

MEANING
If the ratio is 1.45, creditors have put $1.45 in the business for every $1.00 the owners have put in.

WHY YOU CARE
A high Debt / Equity ratio indicates low safety for the business.

POSSIBLE CAUSES OF A HIGH DEBT / EQUITY RATIO

- **Equity too low**
- **Liabilities too high**

POTENTIAL SOLUTIONS

- **Add to capital (sell stock)**
- **Slow growth in order to let profits reduce liabilities instead of purchasing additional assets**

GROSS PROFIT MARGIN

Determined by dividing Gross Profit by Sales

MEANING
If the ratio is 30.7%, for every $1.00 in sales there is $0.307 in gross profit.

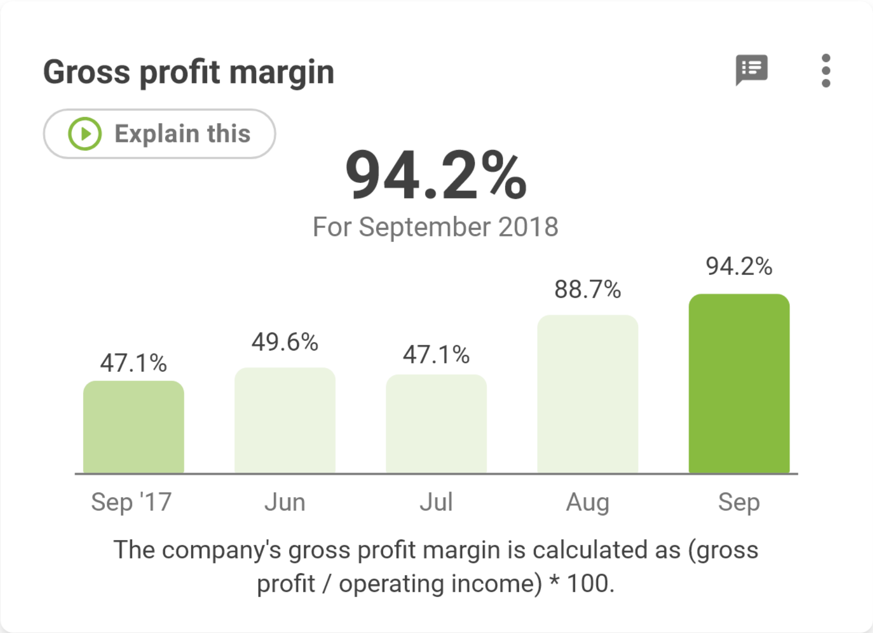
WHY YOU CARE
Gross profit margin is extremely important for maintaining the profitability of any business. Even a slight variation in the gross profit margin can have a large impact on the net profit.

POSSIBLE CAUSES OF LOW GROSS PROFIT MARGIN

- **Poor pricing**
- **Poor buying**
- **Poor product mix**
- **Poor productivity**
- **Spoilage, shrinkage, etc.**

POTENTIAL SOLUTIONS

- **Do not offer discounts**
- **Take trade discounts**
- **Change sales mix**
- **Reduce production costs**
- **Monitor inventory more closely**



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Business Cash Flow Essentials

Lesson 3 Resources
Ratio Analysis Details

NET PROFIT MARGIN

Profit margin as a percentage after operating expenses but before taxes

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MEANING

If the ratio is 14%, for every $1.00 in sales there is $.14 in pre-tax profit.

WHY YOU CARE

It shows what percentage of the sales dollar is profit before taxes.

POSSIBLE CAUSES OF A LOW NET PROFIT MARGIN

- **Low gross profit margin**
- **Overhead too high**

POTENTIAL SOLUTIONS

- **Do not offer discounts**
- **Take trade discounts**
- **Change sales mix**
- **Reduce production costs**
- **Monitor inventory more closely**
- **Reduce overhead**

RETURN ON ASSETS

Return on assets is an indicator of how profitable a company is before leverage, and is compared with companies in the same industry. Determined by dividing Profit Before Taxes by Total Assets.

MEANING

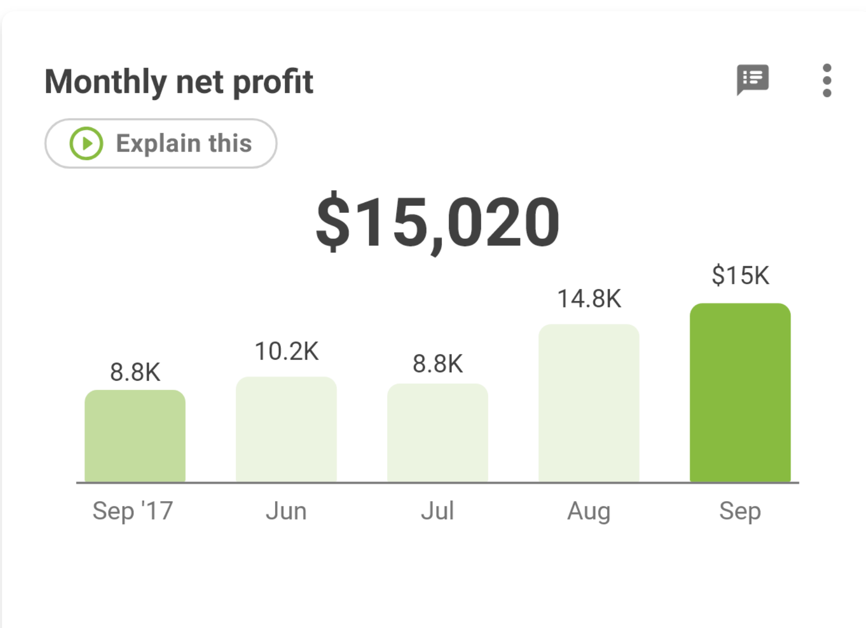
If the ratio is 0.3%, there is $0.003 in profit for every $1.00 in assets employed in the business.

POSSIBLE CAUSES OF A LOW ROA

- **Low pre-tax profit**
- **High assets**
- **High equity**

POTENTIAL SOLUTIONS

- **Increase sales**
- **Reduce expenses**
- **Reduce accounts receivable**
- **Reduce inventory**
- **Expand business using borrowed funds**
- **Sell unnecessary property**



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Lesson 3 Resources

Ratio Analysis Details

RETURN ON INVESTMENT

ROI and related metrics provide a snapshot of profitability, adjusted for the size of the investment assets tied up in the enterprise. ROI is often compared to expected (or required) rates of return on money invested.
Determined by dividing Profit Before Taxes by Equity.

MEANING

If the ratio is 0.3%, there is $0.003 in profit for every $1.00 in equity invested in the business.

POSSIBLE CAUSES OF A LOW ROI

- Low pre-tax profit
- High equity

POTENTIAL SOLUTIONS

- Increase sales
- Reduce expenses
- Expand business using borrowed funds
- Buy back equity from investors

INCOME TO ASSETS

This ratio measures the overall productivity of the assets employed to generate income. It indicates whether the assets used in the business are generating sufficient sales or otherwise contributing to the profitablity of the company.
Determined by dividing Total Income by Total Assets.

MEANING

If the ratio is 1.98, that means there is $1.98 in income for every $1.00 in assets employed in the business.

WHY YOU CARE

A low Income to Assets ratio indicates that the assets of the business are not providing adequate revenue.

POSSIBLE CAUSES OF A LOW INCOME/ASSETS

- Low sales volume
- Assets invested in the company are too large

POTENTIAL SOLUTIONS

- Increase sales by increasing accounts receivable (loosening credit terms) and/or increasing inventory (having better selection to choose from)
- Reduce excess inventory (reducing assets)
- Sell or leaseback some fixed assets
- Sell unnecessary property

Lesson 3 Resources
Ratio Analysis Details

INVENTORY TURNOVER

Inventory Turnover, along with Turnover Days, analyzes how well a business's inventory is being managed.
Determined by dividing Cost of Goods Sold by the Inventory valuation.

MEANING
If the ratio is 4, that means the inventory turns over 4 times per year.

WHY YOU CARE
A low Inventory Turnover ratio, suggests that there may excess inventory on hand. Excessive inventory can cause insufficient liquidity and can reduce profitability due to high inventory holding costs. Inventory levels must be managed on a month-by-month basis in order to ensure that they stay at appropriate levels.

POSSIBLE CAUSES OF LOW INVENTORY TURNOVER

- Current inventory stock is too high

POTENTIAL SOLUTIONS

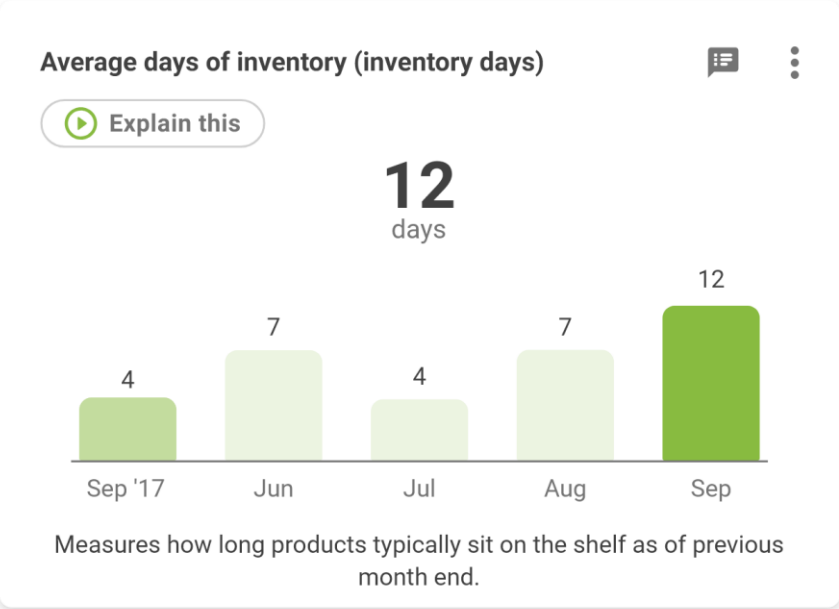
- Reduce inventory on-hand (calculate appropriate inventory by dividing cost of goods sold by the industry average inventory turnover rate)

INVENTORY DAYS

Inventory Turnover Days, along with the Inventory Turnover Ratio, analyzes how well a business's inventory is being managed. Determined by dividing 365 days by the Inventory Turnover Ratio. This measures how quickly inventory is sold through, an indication for how well inventory is being managed.

MEANING
If the ratio is 91, that means the inventory turns over every 91 days.

WHY YOU CARE
High Inventory Turnover Days indicates that inventory sits on the shelf longer than is ideal. Excessive inventory can cause insufficient liquidity and can reduce profitability due to high inventory holding costs.



Dashboard tile
from CashFlowTool

Lesson 3 Resources

Ratio Analysis Details

A/R TURNOVER

The Accounts Receivable related metrics help determine whether the accounts receivable are inline with sales.
Determined by dividing Sales by Accounts Receivables. This ratio shows the number of times that AR is collected throughout the year.

MEANING
If the ratio is 10.9, that means that on average, the accounts receivable turn over 10.9 times per year.

WHY YOU CARE
If receivables are excessive, the business's liquidity is impaired, and this could lead to future bad debt losses. A high AR Turnover ratio indicates a tight credit policy while a low or declining ratio indicates a potential collection problem.

POSSIBLE CAUSES OF LOW A/R TURNOVER

- **Accounts receivable is too high**

POTENTIAL SOLUTIONS

- **Reduce accounts receivable**

A/R DAYS

How many days, on average, it takes for customers to pay their invoices.
Determined by dividing 365 days by the Accounts Receivable Turnover ratio

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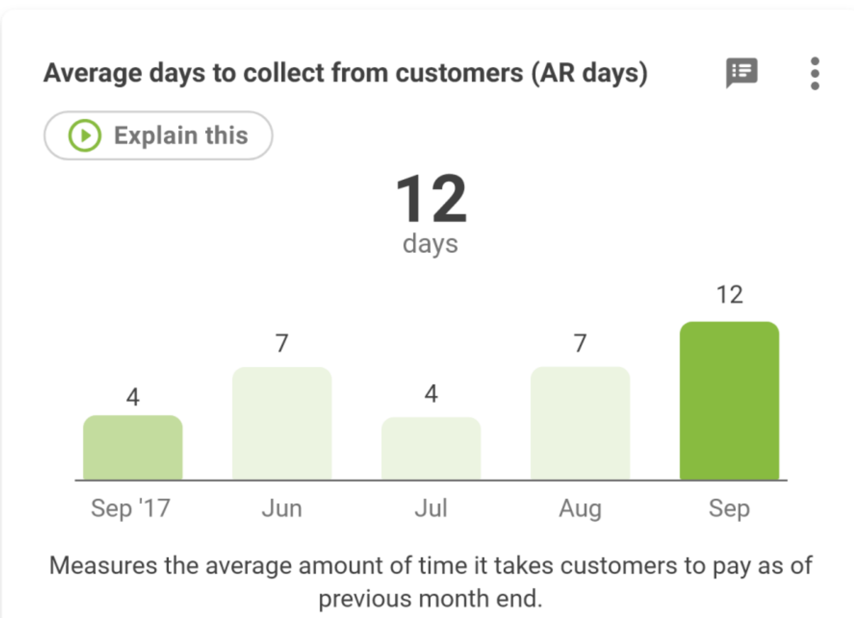
MEANING
If the ratio is 33, that means that on average, the accounts receivable are collected every 33 days.

WHY YOU CARE
A high AR Collection Period indicates the business takes longer to convert receivables in to cash, however, a low Collection Period may scare away potential customers who may look for competitors with more favorable terms.



Dashboard card from CashFlowTool

Business Cash Flow Essentials

Lesson 3 Resources

Ratio Analysis Details

A/P TURNOVER

The Accounts Payable metrics indicate how quickly a business pays off its suppliers. Determined by dividing Cost of Goods Sold by Accounts Payable.

MEANING

If the ratio is 6.6, that means that the accounts payable turn over 6.6 times per year.

WHY YOU CARE

A falling turnover indicates that the business is taking longer to pay its suppliers.

POSSIBLE CAUSES OF A LOW A/P TURNOVER

- Excessive inventory and/or fixed assets (cash that could be used to pay bills is tied up in inventory)

POTENTIAL SOLUTIONS

- Reduce inventory
- Sale/leaseback some of the fixed assets

A/P DAYS

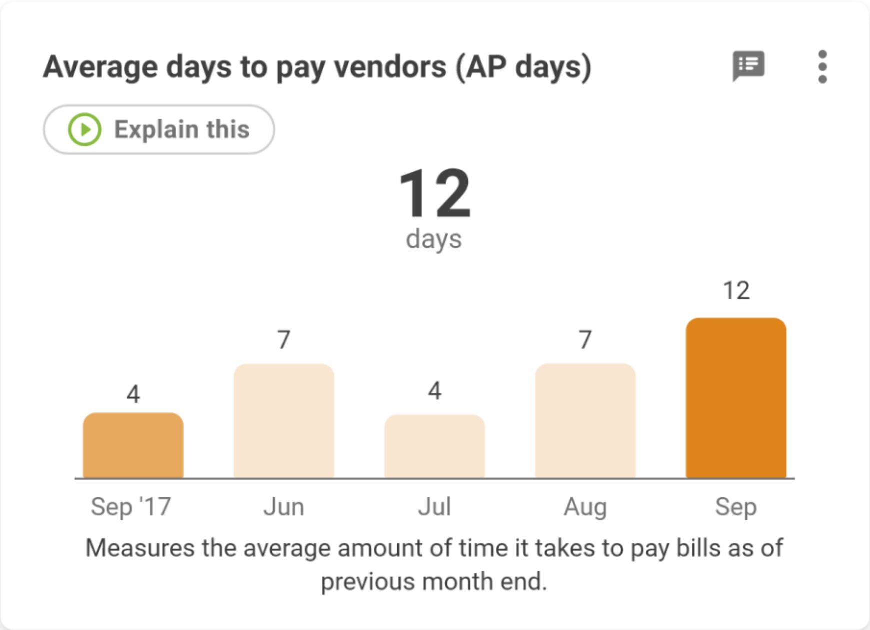
How many days, on average, it takes a business to pay their suppliers. Determined by dividing 365 days by the Accounts Payable Turnover ratio

MEANING

If the ratio is 55, that means that on average, the accounts payable turn over every 55 days.

WHY YOU CARE

A high AP Collection Period indicates the business takes longer than average to pay their vendors. While the business may be holding on to cash longer, there may be opportunities for discounts if bills are paid more quickly.



Dashboard tile from CashFlowTool

Business Cash Flow Essentials

Lesson 3 Resources
Financial Impact Worksheet

1. GROSS PROFIT

Sales $	X	Target Gross Profit Margin %	=	Target Gross Profit $
Target Gross Profit $	-	Actual Gross Profit $	=	Financial Impact $

2. OPERATING PROFIT

Sales $	X	Target Operating Profit %	=	Target Operating Profit $
Target Operating Profit $	-	Actual Operating Profit $	=	Financial Impact $

3. SALES

Total Assets $	X	Target Sales to Assets	=	Target Sales $
Target Sales $	-	Actual Sales $	=	Financial Impact $

4. INVENTORY

Cost of Goods Sold $	÷	Target Inventory Turnover	=	Target Inventory $
Target Inventory $	-	Actual Inventory $	=	Financial Impact $

5. ACCOUNTS RECEIVABLE

Sales $	÷	Target Accts. Rec. Turnover	=	Target Accounts Receivable $
Target Accounts Receivable $	-	Actual Accts. Receivable $	=	Financial Impact $

6. ACCOUNTS PAYABLE

Cost of Goods Sold $	÷	Target Accts. Payable Turnover	=	Target Accounts Payable $
Target Accounts Payable $	-	Actual Accounts Payable $	=	Financial Impact $

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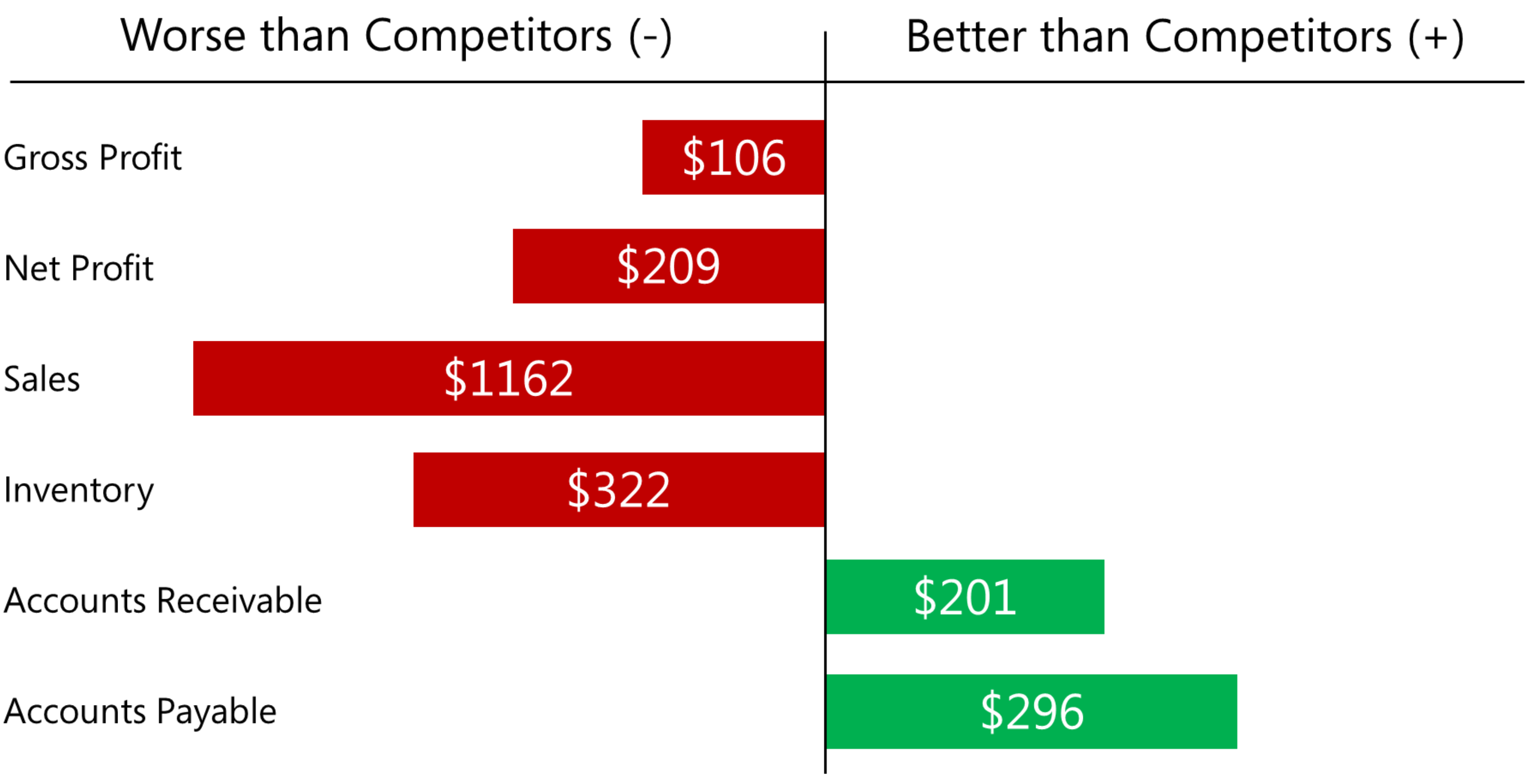
Cash Impact Map – Financial Impact



This graph is another way to visualize the financial impact of key cash drivers of your business. When comparing your company to the industry average, or the goals/targets for your company, displaying the information like this will instantly highlight hidden cash opportunities. For those areas where you are performing worse than your goals or competition, place a red bar to the left of the graph. If you are out-performing your goals, then place a green bar to the right of this graph. The areas listed in red should be viewed as areas of improvement to your cash position.

Business Cash Flow Essentials

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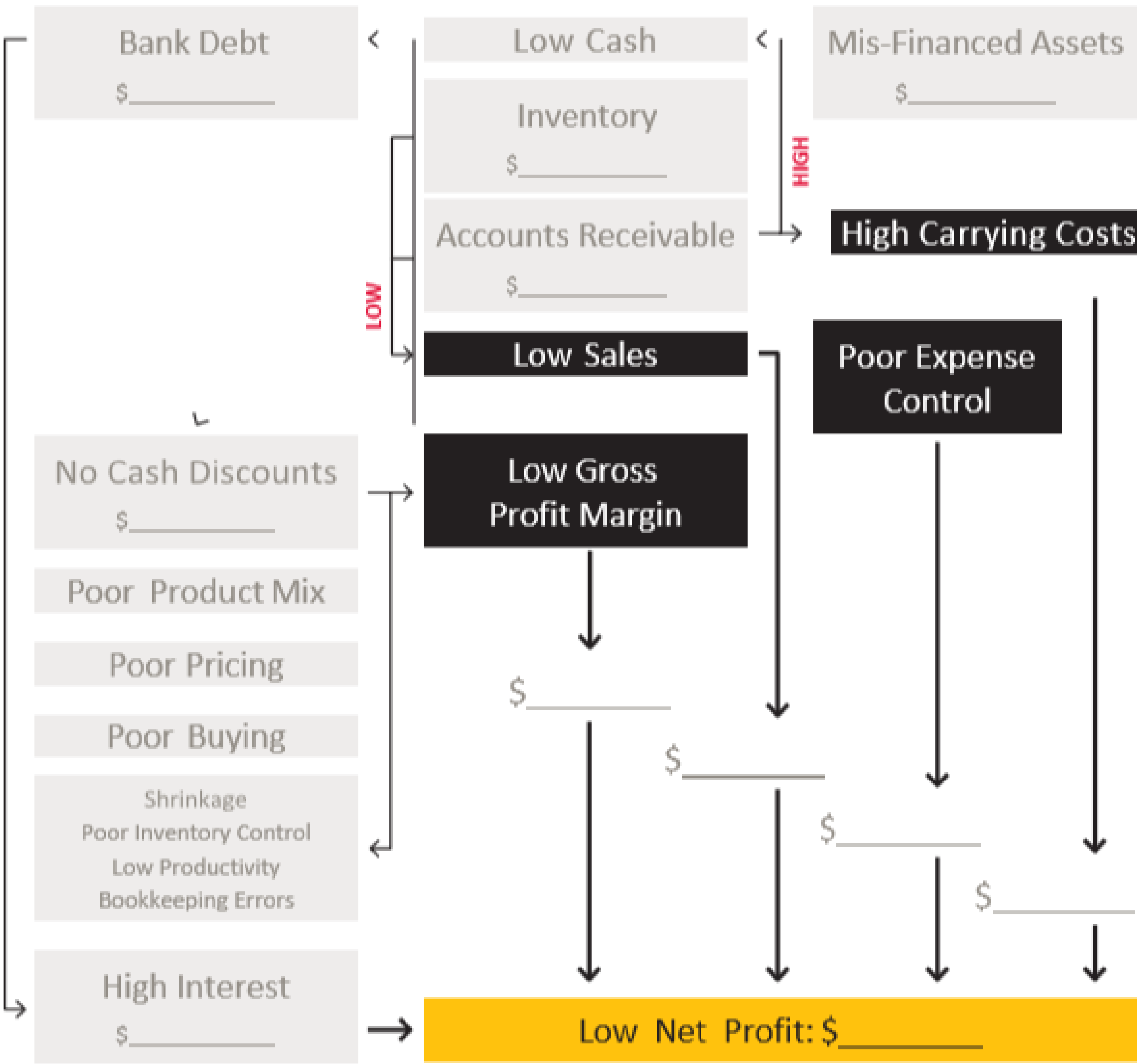
Financial Cause & Effect Diagram



Lesson 3 Resources

Problem Identification

Financial Problems

1 ______________________________

2 ______________________________

3 ______________________________

4 ______________________________

5 ______________________________

Financial Solutions

1 ______________________________

2 ______________________________

3 ______________________________

4 ______________________________

5 ______________________________

Comments

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