

Traditional View

**Roberts Manufacturing Co.**

	<b><u>2006</u></b>	<b><u>% of Sales</u></b>
Sales	\$ 100,000	100.0%
Cost of Sales	45,000	45.0%
Gross Margin	<u>55,000</u>	<u>55.0%</u>
SG&A	32,000	32.0%
R&D	8,000	8.0%
Total Expenses	<u>40,000</u>	<u>40.0%</u>
Operating Income	<u>15,000</u>	<u>15.0%</u>
Other Income (Expense)	605	0.6%
Taxes	4,894	4.9%
Net Income	<u><u>9,501</u></u>	<u><u>9.5%</u></u>

**Roberts Manufacturing Co.****Comprehensive View**

**Sales Growth Rate:** 8.0%      **2017**    **% of Sales**

**Profitability Model**

Sales	\$ 100,000	100.0%
Cost of Sales	45,000	45.0%
Gross Margin	55,000	55.0%
SG&A	32,000	32.0%
R&D	8,000	8.0%
Total Expenses	40,000	40.0%
Operating Income	15,000	15.0%
Other Income (Expense)	605	0.6%
Taxes	4,894	4.9%
Net Income	9,501	9.5%

**Asset Utilization**

Days Sales Outstanding	73.0
Days Sales Inventory	146.0
Operating Capital Turnover	3.4
Fixed Asset Turnover	5.0
Intangible Turnover	9.1
Total Asset Turnover	1.3

**Leverage**

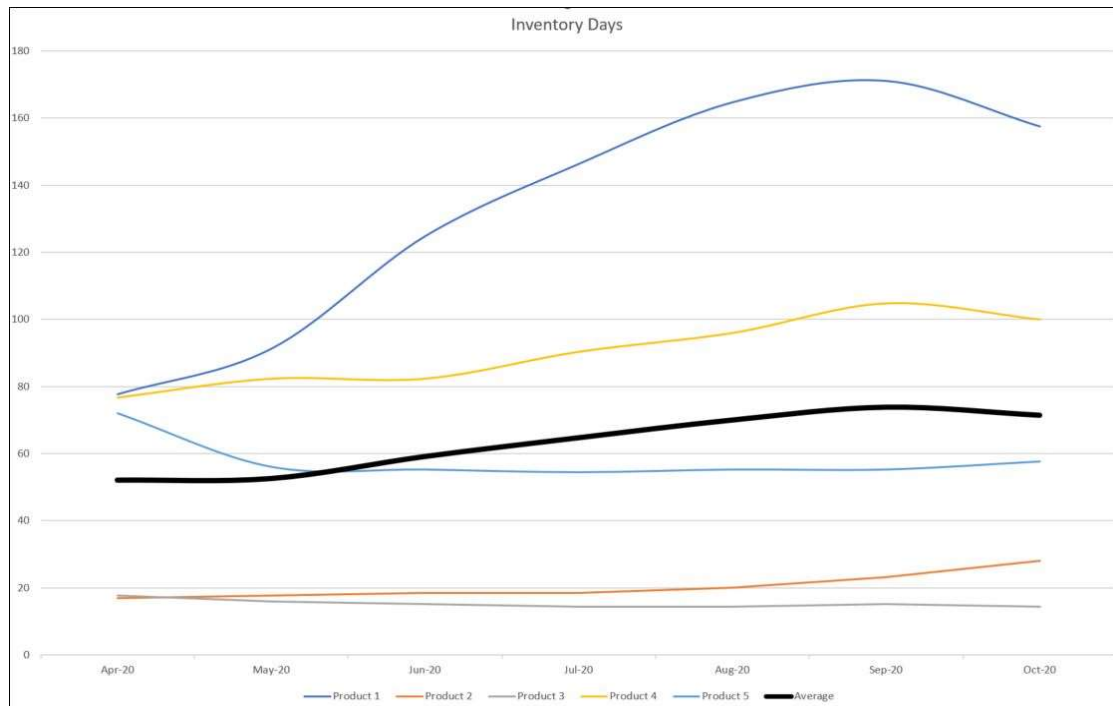
Debt to Total Capital	1.4
	15.3%

**Returns**

ROE	17.2%
ROIC	15.2%

## Varying Business Models Under the same Roof

	Equipment		Components		Services
	<u>Mature</u>	<u>High Growth</u>	<u>Mature</u>	<u>High Growth</u>	
Estimated Sales Growth	5%	15-20%	5%	15-20%	3%
Gross Margin	65%	60%	45%	40%	15%
R&D	9%	12%	5%	3%	1%
SG&A	40%	35%	30%	18%	5%
Operating Margins	16%	13%	10%	19%	9%
Net Income	10%	8%	7%	12%	6%
DSO	60	60	50	45	75
DSI	120	90	70	50	0
Other Capital Requirements	L	M	M	H	L
Asset turnover	3.0	4.0	5.0	4.0	8.0
ROIC	31%	34%	33%	49%	47%



## Cost and Breakeven Analysis

Roberts Manufacturing Co

			2018 Variable		
	<u>Fixed</u>	<u>Variable</u>	<u>% Sales</u>	<u>Total</u>	<u>% of Sales</u>
Sales				100,000	100.0%
<u>Cost of Sales</u>					
Material		20,000	20.0%	20,000	20.0%
Direct Labor	12,000	1,000	1.0%	13,000	13.0%
Overhead	11,000	1,000	1.0%	12,000	12.0%
Total Cost of Sales	23,000	22,000	22.0%	45,000	45.0%
<u>Operating Expenses</u>					
R&D	8,000			8,000	8.0%
Selling Expense	20,000			20,000	20.0%
Commission Expense		3,000	3.0%	3,000	3.0%
Marketing Expense	4,000			4,000	4.0%
G&A	5,000			5,000	5.0%
Goodwill Amortization					0.0%
Total Operating Expenses	37,000	3,000	3.0%	40,000	40.0%
Total Costs	60,000	25,000	25.0%	85,000	85.0%
Operating Profit				15,000	15.0%
Variable Contribution Margin			75.0%	-	
Breakeven Point Sales per Year				\$ 80,000	80.0%
Breakeven Point Sales per Week				1,538	

Note: Fixed costs are defined as costs fixed for the short term (i.e.; 90-180 days).

## Operating Leverage Illustration

### Current

		<u>-60%</u>	<u>-40%</u>	<u>-20%</u>	<u>Base</u>	<u>+20%</u>	<u>+40%</u>	<u>+60%</u>
Sales		40,000	60,000	80,000	100,000	120,000	140,000	160,000
Fixed Costs	60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000
Variable Costs	25.0%	-10,000	-15,000	-20,000	-25,000	-30,000	-35,000	-40,000
Operating Profit		-30,000	-15,000	0	15,000	30,000	45,000	60,000
%		-75.0%	-25.0%	0.0%	15.0%	25.0%	32.1%	37.5%

Breakeven Sales Level      80,000

Operating Leverage Illustration

Reduce Breakeven

		<u>-60%</u>	<u>-40%</u>	<u>-20%</u>	<u>Base</u>	<u>+20%</u>	<u>+40%</u>	<u>+60%</u>
Sales		40,000	60,000	80,000	100,000	120,000	140,000	160,000
Fixed Costs	40,000	-40,000	-40,000	-40,000	-40,000	-40,000	-40,000	-40,000
Variable Costs	45.0%	-18,000	-27,000	-36,000	-45,000	-54,000	-63,000	-72,000
Operating Profit		-18,000	-7,000	4,000	15,000	26,000	37,000	48,000
%		-45.0%	-11.7%	5.0%	15.0%	21.7%	26.4%	30.0%

Breakeven Sales Level      72,727