

Return on Investment Activity



Cristi Cristich

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Ms. Cristich founded her company, Cristek, in 1985, at the age of 23. Cristek, which now employs over 100, has been honored to receive many awards for its performance and ability to creatively partner with customers.

Cristek is a HUB Zone Certified, Woman Owned, AS9100 registered business and was one of the first companies to earn SEA Certification.

Taking the Leap!

Can I count on a return my investment from my improvement efforts?

Exercise Preparation

- ✈ Break into teams
- ✈ Get a calculator and a pen
- ✈ Obtain a handout for your team

Annual Revenue	\$10,000,000	
Scrap Rate as % of Sales	3%	\$300,000
Direct Labor as a % of Sales	15%	\$1,500,000
All Overhead Labor as a % of Sales	20%	\$2,000,000
Material as a % of Sales	20%	\$2,000,000
All other expenses	Equals Sales - (Scrap + Labor + Material + Net Profit)	\$3,200,000
Net Profit as a % of Sales	10%	\$1,000,000

Baseline Conditions

1. Fill in annual revenue for baseline
2. Fill in baseline % scrap and calculate. Example is \$10 Million x .03 = \$300K
3. Fill in baseline of direct labor & calculate. Example = $.15 \times \$11,000,000$
4. Fill in baseline of OH labor & calculate. Example = $.20 \times \$11,000,000$

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All other expenses	Equals Sales - (Scrap + Labor + Material + Net Profit)	\$3,200,000
Net Profit as a % of Sales	10%	\$1,000,000

Baseline Conditions

2. Fill in baseline % scrap
3. Fill in baseline of direct
4. Fill in baseline of OH labor
5. Fill in baseline % Material.
Example = $.20 \times \$10 \text{ Mill}$
6. Fill in baseline amount of Net Profit. Example = $.10 \times \$10 \text{ Mill}$
7. Calculate baseline of all other expenses:
 $\$10 \text{ Mill minus } (300,000 + 1,500,000 + 2,000,000 + 2,000,000 + 1,000,000)$
equals $\$3,200,000$

Increase/Decrease Sales	10%	\$11,000,000
Increase/Decrease Scrap	-10%	\$297,000
Increase/Decrease Productivity	-10%	\$1,485,000
Increase/Decrease Productivity	-10%	\$1,980,000
Increase/Decrease Material % Content	0%	\$2,200,000
Formula assumes that half of the other expenses will increase in same ratio as sales increase and the others will remain fixed		\$3,360,000
Net Profit \$\$		\$1,678,000

Change Assumptions

1. Fill in % of sales change and calculate. Example calc = $\$10,000,000 \times .10 = \11 million
2. Fill in estimate reduction of % scrap and calculate. Example = $[\$300K + (\$300K \times 10\%)]$ multiplied by $\$11,000,000$
3. Fill in estimate of direct labor productivity change & calculate. Example = $.15 + (.15 \times -.1)$ multiplied by $\$11,000,000$
4. Fill in estimate of direct labor productivity change & calculate. Example = $.15 + (.15 \times -.1)$ multiplied by $\$11,000,000$

Increase/Decrease Sales	10%	\$11,000,000
Increase/Decrease Scrap	-10%	\$297,000
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Increase/Decrease Material % Content	0%	\$2,200,000
Formula assumes that half of the other expenses will increase in same ratio as sales increase and the others will remain fixed		\$3,360,000
Net Profit \$\$		\$1,678,000

Change Assumptions

- Fill in estimate of overhead labor productivity change & calculate. Example = $.20 + (.20 \times -.1)$ multiplied by \$11,000,000
- Example assumes no change but formula can be applied as follows: $.20 + (.20 \times 0\%)$ multiplied by \$11,000,000
- If you follow the assumption of example 2 $\times (.5 \times \$3,200,000)$ plus $(.10 \times .5 \times \$3,200,000)$
- Net Profit = \$11,000,000 minus $(297,000 + 1,485,000 + 1,980,000 + 2,200,000 + 3,360,000)$ equals \$1,678,000.

Final ROI Calculations for Year 1

Assumptions in CASH

Net Increase/Decrease in Profit			\$678,000
Rough Cash Impactors	Increase/Decrease in inventory investment?		\$0
	Increase/Decrease in Cash into Cap Ex		\$100,000
Estimated Cash Increase/Decrease (assuming no change in AP/AR payment/collection practices)			\$578,000

- ✈ Most SAC suppliers increase turns (reduce inventory) and make improvements with little or no cash in cap ex but in this example we were extremely conservative