

Calculating Costs

Maximizing your Margins

- To set a price for your product or service, the first step is to determine the cost of the product or service.
- No one wants to price a product or service so low that they lose money or so high that customers are scared away.
- Entrepreneurs/small businesses should use a balanced approach to pricing, so they attract customers and still earn a profit.

Maximizing your Margins

- The price should include the actual product materials as well as the labor and overhead.
- Entrepreneurs need to stay aware of the costs to manage the profitability.

Biblical Perspective

Luke 14:28-30 (NIV)

²⁸“Suppose one of you wants to build a tower. Won’t you first sit down and estimate the cost to see if you have enough money to complete it? ²⁹For if you lay the foundation and are not able to finish it, everyone who sees it will ridicule you, ³⁰saying, ‘This person began to build and wasn’t able to finish.’”

Biblical Perspective

This passage provides valuable insights on God's view on counting or calculating the cost of a project (product/service).

- **Sit Down** (verse 28). This translated from the Greek word *kathidzo* that depicts someone who sits down and takes a long time to seriously contemplate.
- Calculating product and/or service costs is not an exercise that is done hastily.

Biblical Perspective

- **Estimate the Cost** (verse 28). This translated from the Greek word psiphidzo which means to count or to calculate the real cost before starting a project.
- You can relate this to pricing. You can't develop the price for your product or services without first calculating the cost.

Biblical Perspective

- **Finish it** (verse 29). This translated from the Greek word *apartismos* which means to bring a project to completion.
- Cost calculation and price setting are tasks that must be well executed and completed.
- The failure to calculate product or service costs can lead to business failure and ruin, just like the tower builder!

Product Cost

- Product costs are the expenses incurred in the production of a product.
- Materials, labor, production supplies, and factory overhead are all components of the product cost.

Product Cost

What is Product Cost? To find the cost of making a product, add these three things:

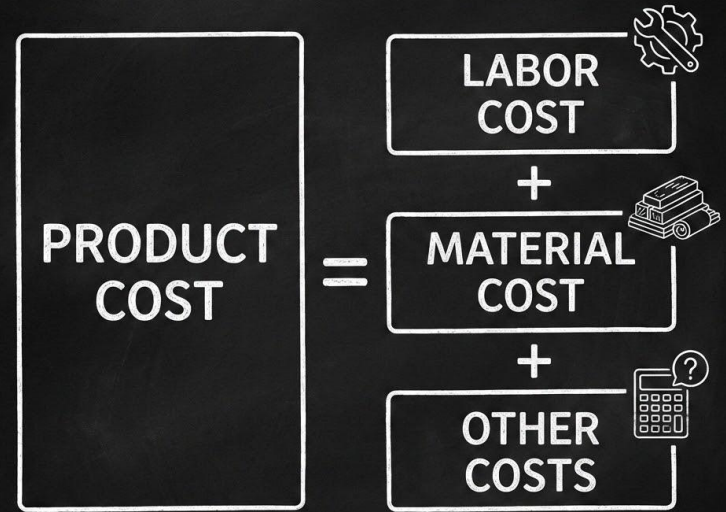
- 1. Labor Cost:** How much you pay yourself or your workers for the time spent making the product.
- 2. Material Cost:** The cost of the materials used to make one product (e.g., fabric, thread, buttons for making a shirt).

Product Cost

3. Other Costs: Any extra costs involved in production, such as:

- Rent for the space you work in.
- Electricity used for machines.
- Tools or equipment wear and tear.

SIMPLIFIED FORMULA:



Understanding Manufacturing Expenses

Product Cost Example

Imagine you make 10 handmade bracelets:

- Labor Cost: \$20 (for the time spent making all 10 bracelets).
- Material Cost: \$10 (cost of beads, string, and glue for all 10 bracelets).
- Other Costs: \$5 (for electricity and rent).

Product Cost Example

Step 1: Add Up Total Costs

- Total Cost = \$20 (Labor) + \$10 (Materials) + \$5 (Other Costs)
- Total Cost = \$35

Step 2: Calculate Cost Per Unit

- Product Cost Per Unit = $\$35 \div 10$ bracelets
- Product Cost Per Unit = \$3.50 per bracelet

Service Business Cost

- A service-based business has a different cost structure than a manufacturing company.
- The costs of services can be based either on an hourly or project basis.
- If using the project basis cost method, I would recommend to calculate your hourly service costs.

Service Business Cost

Steps to Calculate Your Hourly Costs

Step 1: Find Your Billable Hours

- Decide how many hours you plan to work in a year.
- Exclude time spent on non-billable activities like bookkeeping, marketing, or learning new skills.

Service Business Cost

Steps to Calculate Your Hourly Costs

Example: You plan to work 8 hours a day, 5 days a week, for 50 weeks (2 weeks off for vacation):

- Total annual work hours = $8 \times 5 \times 50 = \mathbf{2,000 \text{ hours}}$
- Estimate 30% of your time is non-billable (e.g., admin tasks, training):
 - Non-billable hours = $2,000 \times 30\% = \mathbf{600 \text{ hours}}$
 - Billable hours = $2,000 - 600 = \mathbf{1,400 \text{ hours}}$

Service Business Cost

Step 2: Calculate Your Total Annual Costs

Add your annual **overhead costs** (business expenses) and **labor costs** (your salary and benefits).

Example:

Overhead costs:

- Rent: \$3,000/year
- Utilities: \$1,200/year
- Office Supplies: \$500/year
- Equipment and Software: \$1,300/year
- Total Overhead = **\$6,000/year**

Service Business Cost

Step 2: Calculate Your Total Annual Costs

Add your annual **overhead costs** (business expenses) and **labor costs** (your salary and benefits).

Example:

- Labor costs (salary): **\$20,000/year**
- Total Annual Costs = \$6,000 + \$20,000 = **\$26,000/year**

Service Business Cost

Step 3: Calculate Your Hourly Cost

Divide your **Total Annual Costs** by your **Billable Hours** to find the hourly rate you need to cover expenses.

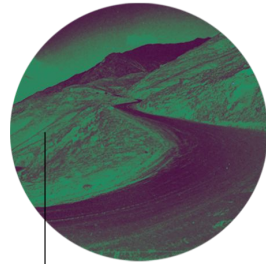
Example:

- Total Annual Costs = \$26,000
- Billable Hours = 1,400 hours
- Hourly Cost = $\$26,000 \div 1,400 = \mathbf{\$18.57/hour}$

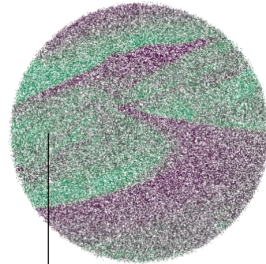
To cover expenses, you need to charge at least **\$18.57 per hour**. This doesn't include profit, so you'll need to add a markup to ensure your business is sustainable.

Practice Session: Calculating Cost

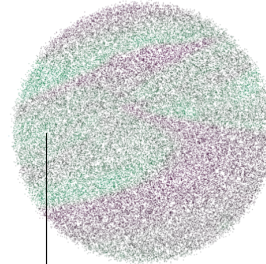
Retention of new information over time, without repetition



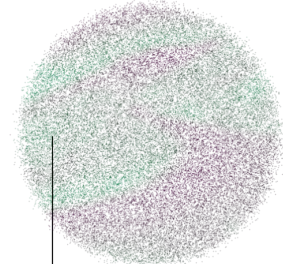
100%
Immediately
after learning



60%
20 minutes
after learning



30%
1 day
after learning



25%
1 week
after learning

Practice Session: Calculating Cost

Instructions:

1. **Form Teams:** Work in teams of 2-3. Assign one person as the recorder to write down calculations and one as the presenter to share your answers with the class.
2. **Review the Scenarios:**
 - Read each example carefully.
 - Use the information provided to complete the calculations.
3. **Follow the Steps:**
 - For **Practice Example 1 (Product Cost):** Calculate the total cost and cost per product.
 - For **Practice Example 2 (Service Cost):** Determine billable hours, total annual costs, and the hourly rate.

Practice Session: Calculating Cost

Instructions:

4. Use the Simplified Formulas:

- **Product Cost = Labor Cost + Material Cost + Other Costs**
- **Product Cost Per Unit = Total Cost ÷ Number of Products**
- **Service Hourly Rate = Total Annual Cost ÷ Billable Hours**

5. Discuss in Teams: Work together to complete the calculations, share your reasoning, and agree on the final answers.

6. Present Your Results: Each team will share their answers with the class and explain how they arrived at their numbers.

Practice Session: Calculating Cost

Example 1: Handmade Bags

Scenario: Your team runs a small business making handmade bags using local materials. This week, you made 20 bags. You need to calculate the cost of producing one bag.

Here is the data:

- **Direct Labor Cost:** \$50 for the time spent making all the bags.
- **Direct Material Cost:** \$40 for fabric, thread, and decorations for all the bags.
- **Other Costs:** \$10 for electricity and workspace rental.

Tasks:

1. Calculate the **total product cost**.
2. Find the **cost per bag** by dividing the total cost by the number of bags produced.

Practice Session: Calculating Cost

Example 2: Mobile Mechanic Service

Scenario: Your team runs a mobile mechanic service, fixing motorcycles in your local area. You want to calculate how much to charge per hour to cover your costs.

Here is the data:

- 1. Billable Hours:** You plan to work 8 hours a day, 5 days a week, for 50 weeks a year. However, 40% of your time is non-billable (e.g., traveling, marketing).
- 2. Annual Overhead Costs:**
 - Tools and maintenance: \$2,000/year
 - Transportation: \$1,500/year
 - Phone and internet: \$500/year
 - Total Overhead = \$4,000/year
- 3. Labor Costs:** Your salary is \$10,000/year.

Practice Session: Calculating Cost

Example 2: Mobile Mechanic Service

Tasks:

1. Calculate the **total annual cost** by adding overhead and labor costs.
2. Determine the **billable hours** for the year.
3. Divide the total cost by the billable hours to find the **hourly rate** you need to charge.

“And let us consider how we may spur one another on toward love and good deeds,” – Hebrews 10:24

Your business is a platform to glorify God, serve others, and inspire transformation in your community. Keep building with purpose, faith, and integrity.

