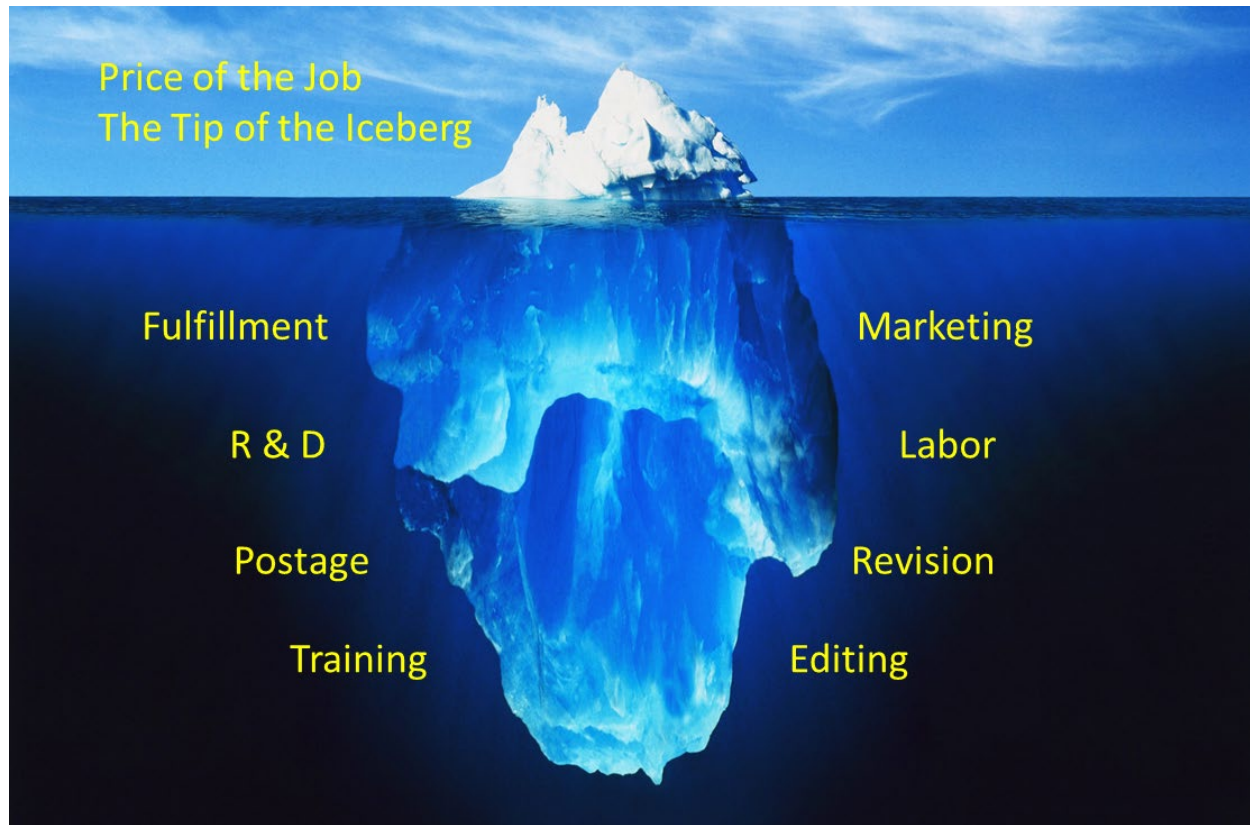


Total Cost of Ownership



The genesis of this paper was the closure of the MU Extension publications warehouse. Historically, the cost of warehouse facilities, labor and shipping were not allocated back to the business unit or office that ordered publications, logo items or other materials. In addition, during the creation phase of guides, peer reviewed publications and curriculum, ancillary fees have not been accounted for in the pricing or fees charged to end users. Without including labor, shipping, research and development and future update costs into a manuscript, pricing becomes artificially low.

Total cost of ownership (TCO) is an analysis that places a single value on the complete lifecycle of a product purchase. This value includes every phase of ownership: acquisition, operation, and the softer costs of change management that flows down from acquisition such as documentation, training, research and development, future updates, etc.

How does Total Cost compare to Price?

Total cost of ownership (TCO) highlights the difference between purchase price and long-term cost. There are a number of different ways this analysis is useful to decision makers. Total cost of ownership (TCO) analysis can help make critical decisions on the viability of a curriculum or offering. Without including all cost components for the entire lifecycle of a product, pricing will be set inappropriately and adequate cash flow will not be realized. By incorporating TCO into the upfront analysis process, it directly impacts outcomes in product design, prioritization of program funding, and overall department budgeting.

The Basics

A cost-benefit analysis finds, quantifies, and adds all the positive factors involved in a proposed course of action. These are the benefits.

Then all the negatives, or costs, are identified, quantified, and subtracted.

The difference between the two indicates whether the planned action is advisable. The real trick to doing a cost-benefit analysis well is making sure you include all the costs and benefits and properly quantify them.

What is included in TCO Analysis?

There are three key components to TCO calculations:

1. Acquisition Costs
2. Operating Costs
3. Personnel Costs

Acquisition Costs

Acquisition costs include the cost of materials (printing or sourcing costs), discounts and purchasing incentives. Discounts and purchasing incentives for printed materials are typically driven by volume or the combination of jobs to more efficiently group print runs to reach volume discount levels.

Operating Costs

Operating costs include storage, postage, research and development hours to keep current and updating or revision services by internal or outside editors needed to maintain the item for use. This category also includes utility costs, direct operator labor, and initial training costs.

Personnel Costs

Personnel overhead may include administrative staffing, support personnel, faculty and systems staffing to make the product available online. This may include ongoing training based on research and development discovery. Personnel costs always include benefits in the loaded labor rate used in calculations.

Real total cost of ownership (TCO) analysis is a critical tool in the decision-making toolbox for any organization. It requires both an understanding of the investment considered, the potential audience for a product and the potential business and audience impact in the marketplace.



Example 1 below demonstrates the total cost of ownership when all cost components are included in pricing analysis. Pricing should be established at a minimum of \$35 per publication for online purchases because of the mandatory 3% credit card merchant fees that must be paid on every transaction.

Example 1

Publication 1		
Quantity	Costs	Assumptions
Print cost @ quantity 100	\$10	
Storage	\$365	\$1 per day for storage
FTE labor & handling	\$112	3 minutes labor X 50 mailings @ \$45/hour loaded labor rate
Shipping	\$25	\$0.50 X 50 mailings
Cost of boxes/shipping materials	\$15	\$0.30 X 50 mailings
Research and development	\$2,600	40 hours @ \$65/hour loaded labor rate
Outside labor to update/edit/revise	\$250	5 hours @ \$50/hour loaded labor rate
Total	\$3,377	
Total Cost / Number of Publications	\$33.77	

Some of this information was adapted from the online articles below:

<https://www.thebalancecareers.com/total-cost-of-ownership-tco-2276009>

<https://www.purchasing-procurement-center.com/total-cost-of-ownership.html>