

ClassTycoon opportunity cost instructor answers

Allow 30 minutes for introductory economics or business students. Use five minutes for the case, eight for calculations, seven for opportunity cost, five for the revised case, and five for an individual explanation. Ask students to finish the first choice before reading the revised forecast.

The \$1,000 budget permits only one complete spending plan. Forecast receipts already deduct other extra operating payments, but exclude the upfront payment. All payments settle this month. Existing activity is unchanged. There are no later benefits, resale proceeds, tax, interest, or unpaid bills. These assumptions make the expected net cash gains comparable.

Marketing gives \$1,450 minus \$1,000, or \$450 expected net gain. Equipment rental gives \$1,600 minus \$1,000, or \$600. Training gives \$1,350 minus \$1,000, or \$350. Keeping the money gives \$0 gain.

The ranking is equipment, marketing, training, then keeping the money. Equipment gives the largest expected increase in cash. Expected month-end cash is \$1,600 with equipment, \$1,450 with marketing, \$1,350 with training, or \$1,000 with no spending.

Choosing equipment gives up marketing's \$450 expected net gain. That \$450 is the opportunity cost of allocating the budget to equipment, measured as the forgone return from its best alternative. The \$1,000 explicit cash payment has already been deducted when calculating each net gain.

Equipment's expected advantage over marketing is \$600 minus \$450, or \$150. Distinguish the \$1,000 payment, the \$450 opportunity cost, and the \$150 advantage. They answer different questions.

If students choose marketing, their best alternative is equipment. Opportunity cost is \$600, and the chosen plan offers \$150 less expected gain. Choosing training also gives up \$600 and offers \$250 less gain. Keeping the money gives up \$600 and offers \$600 less gain under the stated assumptions.

Adding the rejected marketing and training gains would give \$800, but those two plans need \$2,000 and cannot be combined within the budget. Count only the best feasible alternative. Subtracting the \$1,000 again from an already calculated net gain would count the cash payment twice.

In the revised case, marketing forecasts \$1,800 before its \$1,000 upfront payment. Its expected net gain is \$800, above equipment's \$600 and training's \$350. Marketing becomes the preferred plan, with expected month-end cash of \$1,800.

Choosing marketing now gives up the \$600 equipment gain. Opportunity cost is \$600, and the expected advantage is \$800 minus \$600, or \$200. Choosing equipment instead would give up \$800 and offer \$200 less expected gain. This revision happens before any commitment, with the original budget.

A complete individual answer names marketing, its \$800 gain, equipment as the best alternative, and the \$600 forgone gain. It distinguishes these from the \$200 advantage. Give credit for a clear comparison as well as correct arithmetic.

For uncertain forecasts, students could ask about the range of outcomes, their likelihood, and payment timing. If training helps next year, compare later benefits and costs over a common longer period. Another choice needs a stated change in assumptions and supporting evidence.

The lesson is a fictional paper exercise. Its fixed returns and spending restrictions do not describe ClassTycoon's simulation mechanics. Continue with the break-even and cash-flow activities at classtycoon.com, or use the selected simulation's actual decisions to discuss alternatives before a Round.