

Course: contract and liquid chemical co.

[Law](#), [Contract Law](#)



The Cost Analysis for Decision Making project is intended to be a comprehensive evaluation of the key objectives covered throughout this course. It will challenge you to apply your knowledge of cost information when evaluating the decision to make or buy a product. Please use this outline and grading rubric as a guide to completing your course project. It provides specific details of the required elements of the project, and it will be used by your instructor as a grading guide. Read Integrative Case 4-61, "Make versus Buy," on pages 151 and 152 of the course text.

Assume that you are the general manager (Mr. Walsh) faced with this decision. You have identified the following four alternatives available to Liquid Chemical Co.

- Alternative A: It is the status quo. (i. e. , Liquid Chemical Co. will continue making the containers and performing maintenance.)
- Alternative B: Liquid Chemical Co. will continue making the containers, but it will outsource the maintenance to Packages, Inc.
- Alternative C: Liquid Chemical Co. will buy containers from Packages, Inc., but it will perform the maintenance.
- Alternative D: It is completely outsourced. Packages, Inc. will make the containers and provide the necessary maintenance.

Your project should include the following items:

- Part (a): Discuss each of the four alternatives outlined above. Identify the relevant costs (including amounts) for each of the four alternatives, and explain why these costs are relevant to the decision. Identify any costs that are not relevant, and explain why they are not relevant. What are the advantages and disadvantages of each alternative? Who benefits and who loses?
- Part (b): Other than the relevant costs identified in Part (a), what additional information would you use when making your decision? Are there

financial factors other than those identified in the case study that you would incorporate into your decision? What nonfinancial information would affect your decision? •Part (c): As the general manager, which alternative would you choose, and why? Support your conclusion with facts and figures, as necessary. The Liquid Chemical Company manufactures and sells a range of high-grade products. Many of these products require careful packaging.

The company has a special patented lining made that it uses in specially designed packing containers. The lining uses a special material known as GHL. The firm operates a department that maintains and repairs its packing containers to keep them in good condition and that builds new ones to replace units that are damaged beyond repair. Mr. Walsh, the general manager, has for some time suspected that the firm might save money and get equally good service by buying its containers from an outside source. After careful inquiries, he has approached a firm specializing in container production, Packages, Inc., and asked for a quotation. At the same time, he asked Mr. Dyer, his chief accountant, to let him have an up-to-date statement of the costs of operating the container department. Within a few days, the quotation from Packages, Inc., arrived. The firm proposed to supply all the new containers required—at that time, running at the rate of 3, 000 per year—for \$1, 250, 000 a year, the contract to run for a guaranteed term of five years and thereafter renewable from year to year. If the number of containers required increased, the contract price would increase proportionally.

Packages, Inc., also proposed to perform all maintenance and repair work on existing packaging containers for a sum of \$375, 000 a year, on the same

contract terms. Mr. Walsh compared these figures with Mr. Dyer's cost figures, which covered a year's operations of the container department of the Liquid Chemical Company and appear in Exhibit 4. 13. Walsh concluded that he should immediately close the packing container department and sign the contracts offered by Packages, Inc. He felt an obligation, however, to give the manager of the department, Mr.

Duffy, an opportunity to question his decision before acting. Walsh told Duffy that Duffy's own position was not in jeopardy. Even if Walsh closed his department, another managerial position was becoming vacant to which Duffy could move without any loss of pay or prospects. The manager Duffy would replace also earned \$80, 000 per year. Moreover, Walsh knew that he was paying \$85, 000 per year in rent for a warehouse a couple of miles away that was used for other corporate purposes. If he closed Duffy's department, he'd have all the warehouse space he needed without renting additional space.

Duffy gave Walsh a number of considerations to think about before he closed the department: " For instance," he said, " what will you do with the machinery? It cost \$1, 200, 000 four years ago, but you'd be lucky if you'd get \$200, 000 for it now, even though it's good for another five years. And then there's the stock of GHL (a special chemical) we bought a year ago. That cost us \$1, 000, 000, and at the rate, we're using it now, it'll last another four years. We used up only about one-fifth of it last year. Dyer's figure of \$700, 000 for materials includes \$200, 000 for GHL.

But it'll be tricky stuff to handle if we don't use it up. We bought it for \$5, 000 a ton, and you couldn't buy it today for less than \$6, 000. But you'd get

only \$4, 000 a ton if you sold it after you'd covered all the handling expenses. " Walsh also worried about the workers if he closed the department. " I don't think we can find room for any of them elsewhere in the firm. However, I believe Packages would take all but Hines and Walters. Hines and Walters have been with us since they left school 40 years ago. I'd feel bound to give them a supplemental pension—\$15, 000 a year each for five years, say.

Also, I'd figure a total severance pay of \$20, 000 for the other employees, paid in a lump sum at the time we sign the contract with Packages. " Duffy showed some relief at this. " But I still don't like Dyer's figures," he said. " What about this \$225, 000 for general administrative overheads? You surely don't expect to sack anyone in the general office if I'm closed, do you? " Walsh agreed. " Well, I think we've thrashed this out pretty well," said Walsh, " but I've been turning over in my mind the possibility of perhaps keeping on the maintenance work ourselves. What are your views on that, Duffy? " I don't know," said Duffy, " but it's worth looking into. We wouldn't need any machinery for that, and I could hand the supervision over to the current supervisor who earns \$50, 000 per year. You'd need only about one-fifth of the workers, but you could keep on the oldest and save the pension costs. You'd still have the \$20, 000 severance pay, I suppose. You wouldn't save any space, so I suppose the rent would be the same. I don't think the other expenses would be more than \$65, 000 a year. " " What about materials? " asked Walsh. " We use 10 percent of the total on maintenance," Duffy replied. Well, I've told Packages that I'd give them my decision within a week," said Walsh. " I'll let you know what I decide to do before I write to

them. " Assume the company has a cost of capital of 10 percent per year and uses an income tax rate of 40 percent for decisions such as these. Liquid Chemical would pay taxes on any gain or loss on the sale of machinery or the GHL at 40 percent. (Depreciation for book and tax purposes is straight-line over eight years.) The tax basis of the machinery is \$600, 000. Also, assume the company had a five-year time horizon for this project and that any GHL needed for Year 5 would be purchased during Year 5.