

Make or Buy decisions

Manufacturing companies must consider cost saving decisions every day. They must review their process to see if it is better to make the products they sell or some part of the product or buy it from a wholesaler and then resell it. To illustrate a make or buy decision let's look at the following example.

ELM skateboards INC is now producing the heavy duty bearing that is used in its most popular line of skateboards. The company's accounting department reports the following costs of producing eight thousand units of the bearings internally each year:

<u>Per Unit</u>	<u>8000 Units</u>	
Direct Materials	\$6	\$48,000
Direct Labor	\$4	\$32,000
Variable Overhead	\$1	\$8,000
Supervisor Salary	\$3	\$24,000
Depreciation of special equip.	\$2	\$16,000
Allocated general overhead	\$5	<u>\$40,000</u>
Total Cost	\$21	\$168,000

An outside supplier offered to sell 8000 bearings to ELM at a price of only nineteen dollars each. Should the company stop producing the bearings internally and buy them from the outside supplier? When making this decision, the focus should always be on the relevant cost (those that differ between the alternatives). The costs that differ between alternatives consist of the costs that could be avoided by purchasing the bearings from the outside supplier. If the costs that can be avoided by purchasing the bearings from the outside supplier total less than nineteen dollars, then the company should continue to manufacture its own bearings and reject the outside supplier's offer. On the other hand, if the costs that can be avoided by purchasing the bearings from the outside supplier total more than nineteen dollars, the outside supplier's offer should be accepted. You should use the set up below to organize your relevant and avoidable costs.

	Total relevant/avoidable Cost- 8000 Units	
<u>Make</u>		
<u>Buy</u>		
Direct Material (8000 x \$6 per unit)	\$48,000	
Direct Labor	\$32,000	
Variable overhead (8000 x \$4 per unit)	\$8,000	
Supervisor's Salary	\$24,000	
Depreciation of special equipment (not relevant)		
Allocated general overhead (not relevant)		
Outside purchase price		<u>\$152,000</u>
Total cost	<u>\$112,000</u>	\$152,000
Difference in favor of continuing to make	\$40,000	

Note that depreciation of special equipment is listed as one of the costs of producing the bearings internally. Because the equipment has already been purchased, this depreciation is a sunk cost and is therefore irrelevant. If the equipment could be used to make other product, this could be relevant as well. However, we assume that the equipment has no salvage value and it has no other use.

Also, the company is allocating a portion of its general overhead cost to the bearings. Any portion of this general overhead cost that would actually be eliminated if the bearings were purchased rather than made would be relevant in this analysis. However, the general overhead cost is likely a common cost to all the company's items produced in the factory and would continue unchanged even if the bearings were purchased outside (is not relevant).

The variable cost (Direct Material, Direct Labor, and Variable Overhead) can be avoided if the company does not make the bearings. Also we are assuming the supervisor's salary can also be avoided.

Because it costs \$40,000 less to make the bearings internally than to buy them from the outside supplier.