Chapter Four: Short-term Decision Making

Make or Buy Decisions

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What is make or buy decision?

Most manufactured goods are made up of numerous components. In some cases, a company may purchase one or more of the components from another company. This may lead to considerable saving if the outside supplier is efficient at manufacturing the components and can offer it at a reasonable price. Two alternative arise in this situation: make or buy the component. in this decision, there is no differential revenues. Therefore, the analysis of this decision focus only on differential cost.

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Example: General Company for Electrical Industries manufactures air-conditioners. The company uses 80% of its capacity and purchase one of components of the air conditioner which is window from a supplier at IQD 2400 each. The company plans to produce 10000 windows instead of buying it from the supplier as a means of running the idle capacity. The estimated cost for producing 10000 windows are:

Direct Material	6300000
Direct Labor	10950000
Variable Overhead	3000000
Fixed Overhead	8250000
Total Manufacturing cost	28500000
	÷
	10000
Cost of the window	2850

Additional information, if the company purchase the windows from the supplier, fixed overhead are reduced at IQD 1500000

Required: 1- should the company make or buy the window:? Why?

2- Does the answer of required 1 above differ if the required quantity is 3000 windows?

3- Determine symmetry point?

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Required 1:

Differential Analysis	Buy	Make	Details
(24000000)	24000000	0	Cost of purchases
6300000	0	6300000	Direct Material
10950000	0	10950000	Direct Labor
3000000	0	3000000	Variable Overhead
1500000	6750000	8250000	Fixed Overhead
(2250000)	30750000	28500000	Total Cost

Decision: **alternative of make is better because it reduces cost by IQD 2250000**

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Other way for solution

Relevant cost are related with manufacturing decision		
Total	**Per unit**	**Details**
630	6300000	Direct Material
1095	10950000	Direct Labor
300	3000000	Variable Overhead
150	1500000	Fixed Overhead
2175	21750000	Cost of the window

Cost of buying window	10000 X 2400 = 24000000
Cost of making window	10000 X 2175 = 21750000
Saving cost in situation of manufacturing of the window	2250000

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Relevant cost are related with manufacturing decision		
Total	Per unit	Details
630	1890000	Direct Material
1095	3285000	Direct Labor
300	900000	Variable Overhead
500	1500000	Fixed Overhead
2525	7575000	Cost of the window

Cost of making window 3000 X 2525 = 7575000
Cost of buying window 3000 X 2400 = 7200000

Saving cost in situation of buying of the window 375000

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Required 3:

Cost of buying option	**=**	**Cost of manufacturing option**
Fixed cost + Variable Cost	**=**	**Fixed Cost + Variable Cost**
$6750000 + (2400 x Z)	**=**	**$ 825000 + (2025 x Z)**
375 Z	**=**	**$2250000**

$$Z = \frac{\$225000}{\$375}$$ **units 4000 =**