Ex: Supplier Selection

- Cont prev Ex: A domestic supplier has been identified with a cost of $7500 per ton. 12 TLs per year, each containing 15 tons of RM would be shipped 200 miles in one day. TL revenue per loaded mile is $2, should the domestic supplier be used?

$$TLC_1 = TC + IC_w + PC = nc_L + vhq_I + nvq$$

$$= 12(2620) + 7000(0.51)7.39 + 12(7000)15$$

$$= 31,440 + 26,390 + 1,260,000 = \$1,317,830/\text{yr}$$

$$r_{TL} = \$2/\text{mi}, \quad d = 200 \text{ mi}, \quad c_L = r_{TL}d = \$400$$

$$q_I = nqt = 12(15)\frac{1}{365.25} = 0.4928 \text{ ton}$$

$$TLC_2 = TC + IC_w + PC = nc_L + vhq_I + nvq$$

$$= 12(400) + 7500(0.51)0.4928 + 12(7500)15$$

$$= 4,800 + 1,885 + 1,350,000 = \$1,356,685/\text{yr}$$