

PITTS'

An appliance manufacturer located in Pittsburgh purchases 3,000 cases of plastic parts valued at \$100 per case from two suppliers. Purchases are currently divided equally between the suppliers. Each supplier uses rail transport and achieves the same average delivery time. However, for each day that a supplier can reduce the average delivery time, the appliance manufacturer will shift 5 percent of its total purchases, or 150 cases, to the supplier offering the premium delivery service. A supplier earns a margin of 20 percent on each case before transportation charges.

Supplier A would like to consider whether it would be beneficial to switch from rail to air or truck modes. The following transportation rates per case and average delivery times are known for each mode:

<u>Transport Mode</u>	<u>Transport Rate</u>	<u>Delivery Time</u>
Rail	\$ 2.50/case	7 days
Truck	6.00	4
Air	10.35	2

Supplier A's choice can simply be made based on the potential profits to be received. Table 7-2 shows the profits from supplier A's perspective for a transport modal choice.

If the appliance manufacturer remains true to its promise to increase its patronage to the supplier with the better delivery service, supplier A should switch to truck delivery. Of course, supplier A should be watchful of any countermoves by supplier B that may neutralize this advantage.