CASE STUDY

Mintendo Game Girl

It is late June, and Sandra Huchim, head of operations at Mintendo, and Bill Smith, head of sales of We "R" Toys, are about to get together to discuss production and marketing plans for the next 6 months. Mintendo is the manufacturer of the popular Game Girl handheld electronic game that is sold exclusively through We "R" Toys retail stores. The second half of the year is critical to Game Girl's success, because a majority of its sales occur during the holiday shopping period.

Sandra is worried about the impact that the upcoming holiday surge in demand will have on her production line. Costs to subcontract assembly of the Game Girls are expected to increase, and she has been trying to keep costs down, given that her bonus depends on the level of production costs.

Bill is worried about competing toy stores gaining share in the handheld electronic game market during the Christmas buying season. He has seen many companies lose their share by failing to keep prices in line with the performance of their products. He would like to maximize the Game Girl market share in the handheld electronic game market.

Both Sandra's and Bill's teams produce a joint forecast of demand over the next six months, as shown in Table 9-7.

We "R" Toys sells Game Girls for $50 apiece. At the end of June, the company has an inventory of 50,000 Game Girls. Capacity of the production facility is set purely by the number of workers assembling the Game Girls. At the end of June, the company has a workforce of 300 employees, each of whom works 8 hours of regular time at $15/hour for 20 days each month. Work rules require that no employee work more than 40 hours of overtime per month. The various costs are shown in Table 9-8.

Sandra, concerned about controlling costs during the periods of surging demand over the holidays, proposes to Bill that the price be lowered by $5 for the month of September. This would likely increase September's demand by 50 percent due to new customers being attracted to Game Girl. In addition, 30 percent of each of the following two months of demand would occur in September as forward buys. She believes strongly that this leveling of demand will help the company.

Bill counters with the idea of offering the same promotion in November, during the heart of the buying season. In this case, the promotion increases November's demand by 50 percent, owing to new customers being attracted to Game Girl. Additionally, 30 percent of December's demand would occur in November as forward buying. Bill wants to increase revenue and sees no better way to do this than to offer a promotion during the peak season.

Questions

1. Which option delivers the maximum profit for the supply chain: Sandra's plan, Bill's plan, or no promotion plan at all? Assume starting and ending inventory of 0.
2. How does the answer change if a discount of $10 must be given to reach the same level of impact that the $5 discount received?
3. Suppose Sandra's fears about increasing outsourcing costs come to fruition and the cost rises to $22/unit for subcontracting. Does this change the decision when the discount is $5?

TABLE 9-7 Demand for Game Girls

Month	Demand Forecast
July	100,000
August	110,000
September	130,000
October	180,000
November	250,000
December	300,000

TABLE 9-8 Costs for Mintendo/We "R" Toys

Item	Cost
Material cost	$12/unit
Inventory holding cost	$2/unit/month
Marginal cost of a stockout	$10/unit/month
Hiring and training costs	$3,000/worker
Layoff cost	$5,000/worker
Labor hours required	0.25/unit
Regular-time cost	$15/hour
Overtime cost	$22.50/hour
Cost of subcontracting	$18/unit