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Patterson Manufacturing

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INTRODUCTION

The vice president at your company, Columbia Holdings, has given you a new assignment: "Recently I asked the folks at Patterson Manufacturing to develop a strategy for improving their profitability. They have responded with a proposal. I want you to evaluate the proposal: Is it viable? Is it sustainable? Visit their operations and bring back a recommendation."

As you travel to the site you review a brief history of the firm. Patterson Manufacturing was founded in a small northeastern city more than a century ago. Wesley Patterson started the firm alongside a fast-moving stream that provided mechanical power to drive cutting tools, grinders, lathes, and polishers. These tools were used to produce precision parts other manufacturers needed. The firm quickly established a reputation for producing high-quality products to exacting tolerances. The firm prospered.

Wesley studied the industries he served to develop new products that could fill his customers' emerging needs. He often met with customers to design unique products for them. He referred to his approach as providing "customer-driven creative solutions." He also kept abreast of new manufacturing materials and technology to ensure his products were of the highest quality.

The firm grew steadily and, by 1925, was (and still is) the community's largest employer. Wesley donated the land that is now the city's central park. He also paid for constructing the first municipal buildings. More recently, the company was the primary donor for the construction of the municipal library and the local hospital. And the taxes paid by the firm and its employees are responsible for an excellent array of community services, including the Patterson Sports Complex and Patterson Community Center.

The Great Depression in the 1930s brought hard times to the company, yet none of its employees were discharged. Instead, the firm and its employees cooperated to spread the available work among its employees by reducing each individual's working hours (and wages). During that time, the firm also suspended paying dividends to its owners. After the company returned to prosperity in the 1940s, it continued to emphasize customer-driven creative solutions, and its loyal workforce enthusiastically overcame product design challenges.

Wesley passed leadership of his business to his son, who later passed it down to Wesley's grandson, and then to Wesley's great granddaughter, Jessica Patterson. But five years ago, when Jessica wanted to retire, there was no heir willing to take over the business. Consequently, the plant was sold to your employer, Columbia Holdings.

BACKGROUND

Columbia invests in family-owned businesses with a strong presence in niche markets. Columbia retains existing management and local business practices but provides centralized services, such as finance, accounting, insurance, and corporate-level management. Patterson has remained profitable since the acquisition, but its return on investment has been declining.

Your first stop at the Patterson complex is a meeting with the controller. He provides some additional background: "Jessica, like her predecessors, spent most of her time with customers developing new products to meet customer needs. She didn't concern herself with costs. Customers were willing to pay for products that solved problems. Upon Jessica's retirement, Columbia appointed Paul, our former production manager, to CEO. Paul has done wonders in rationalizing and standardizing our product lines. He substantially reduced manufacturing costs, which led to record profits in the two years following the sale of the company. Those early results have apparently set high expectations for our continuing performance. Our proposal will help move us toward meeting those expectations," he said.

"Our proposal is to stop manufacturing our largest-selling product, the Gudgeon EH40, and instead acquire it from an overseas supplier," continued the controller. "This product currently represents 30% of our total sales revenue and production volume. But sales have been declining because competitors are offering a similar product at lower prices. We think that by reducing our price by 5% we can increase our unit sales volume by 15%. The increased volume coupled with a lower product cost from the offshore supplier should nearly double our firm-wide profit."

The controller also provided some supporting documents. Exhibit 1 summarizes operations for the five years since Patterson Manufacturing was sold to Columbia Holdings. Year 1 represents the first full year after Jessica retired, and Year 5 is the year that just past. Exhibits 2, 3, and 4 provide an income statement for Year 5, the current employee staffing levels by job title, and a detailed price proposal from the overseas supplier.

The controller continued: "The analysis is pretty straightforward. Sales of the Gudgeon EH40 were $27 million last year. The direct material costs came to $14.3 million, while overhead costs of $4.2 million were allocated to the product. But only $2.9 million of the overhead will be avoided if we stop manufacturing the Gudgeon EH40. The remaining overhead costs are nearly all fixed and not subject to reduction in the near future. Our direct selling costs consist mostly of an 8% commission paid to sales representatives. In addition, there's a $2 million advertising allowance devoted to promoting the Gudgeon EH40 in trade magazines."

He also said, "By outsourcing the Gudgeon EH40, we can release three administrative managers, eight administrative support staff, 128 general production personnel, and 10 supervisors. The firm will incur a one-time charge of $1 million for severance pay and pension contributions for dismissed employees. We'll also need to spend $200,000 for the construction of receiving facilities for the outsourced product."

The controller continued: "The supplier's cost quotation (Exhibit 4) needs to be adjusted for the expected 15% increase in volume. The cost for materials and labor will increase proportionately, but the overhead and 'other' costs are unlikely to be affected. The supplier's mark-up will be 10% of the new total cost. In addition to the product cost, Patterson will incur transportation costs to get the product from the manufacturer to our warehouse. The transportation costs are variable and would have been $0.6 million for the volume of product in Year 5."

THE TASK

After his brief overview, the controller hands you the exhibits and says, "You should go through the numbers yourself to ensure that my projection for the increase in profit is correct."

As you make your way to an empty office to review the numbers, the marketing manager approaches you. She pleads, "Don't let them do this. The proposed action will deal a devastating financial blow to our community. Wesley Patterson would have never approved such a move. He loved this town."

REQUIRED

1. Using the controller's projections, prepare an analysis of the expected effect of outsourcing the product on Patterson's profitability.
2. Would it be a viable alternative to produce the product locally and lower the price to achieve the increase in sales volume?
3. Does the firm have an obligation to maintain employment levels in the town?
4. What risks are associated with the proposal?
5. Make a recommendation to your vice president on whether the proposal should be accepted. Provide your reasoning and any suggestions for additional or alternative actions that Patterson should take.

Exhibit 1:
Patterson Manufacturing Five-Year Summary of Operations

	Year 5	Year 4	Year 3	Year 2	Year 1
Total Revenues	$90.2	$94.9	$99.1	$106.2	$111.4
Net Income	$3.1	$3.8	$4.4	$7.3	$7.5
Domestic Sales	$74.7	$76.9	$79.3	$85.0	$88.1
International Sales	$15.5	$18.0	$19.8	$21.2	$23.3
Sales of Established Products*	$73.9	$75.1	$74.4	$76.3	$76.6
Sales of New Products*	$16.3	$19.8	$24.7	$29.9	$34.8
Research and Development	$0.9	$1.1	$1.5	$1.2	$1.3
Return on Assets	2.0%	2.3%	2.7%	4.1%	4.2%
Number of Employees	480	485	502	492	510

Note: Dollar figures are in millions.
*Established products are those that have been marketed for five years or more. New products have been marketed for less than five years.

Exhibit 2:
Summary Income Statement for Patterson Manufacturing

	Year 5
Sales	$90.2
Cost of Goods Sold (COGS)	74.3
Gross Margin	15.9
Administrative Costs	1.6
Selling Costs	11.2
Operating Income	**$ 3.1**

Note: Dollar figures are in millions. Interest expense and income taxes are only shown on Columbia's consolidated financial statements.

Exhibit 3:
Distribution of Current Patterson Employees by Job Title

Job Title	Number of Employees	Average Salary Per Employee
Administrative Manager	10	$45,000
Administrative Staff	24	32,000
Production Supervisor	29	50,000
General Production Personnel	417	37,000

Exhibit 4:
Off-Shore Supplier's Price Proposal for the Volume of Product in Year 5

Material Costs	$12.7
Labor Costs	1.8
Overhead Costs	2.7
Other	1.5
Total	18.7
Profit Mark-Up (10%)	1.9
Total Price	**$20.6**

Note: Dollar figures are in millions. The total price is quoted for supplying the quantity of product Patterson sold in Year 5. The quoted price is FOB the supplier's manufacturing plant.