

BA 620 CORPORATE FINANCE

Fonderia Di Torino S.P.A.

A case analysis

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Overview

Fonderia Di Torino is a company that specializes in the production of precision metal casting for use in automotive, aerospace, and construction equipment. The company is currently debating whether to purchase an automated molding machine that will replace their current semi-automated machines at the plant. The semi-automated machines were more labor intensive, requiring 24 operators in a day, versus only 2 operators for the automated machine. A major factor that can alter the purchasing decision is the collective-bargaining agreement the company has with the employees' union. If the company were to take on the project, the company can reassign operators to a janitorial position, which will result in a reduction of salary for the operators. The company now has to weigh out whether the benefits of this purchase will outweigh the costs.

Findings

Three assumptions were used in analyzing this project. A worst case scenario assumed that the union will force the company to retain the employees until the end of their contract (typically 3 years), bargain for a high severance pay, and 50% of the operators will be offered janitorial positions with original pay, and their salary will increase by 10% after the first negotiation with the union and 15% after the second negotiation. The expected case assumes that none of the operators will take the janitorial offer and the union will bargain for 100% of their annual salary as severance pay. The best-case scenario is based on the assumption that all the operators will stay for at least two years, 2/3 of the operators will take a severance pay at 80% of annual income after the union negotiation in year 3, and 1/3 of operators will remain in the company as janitors with €4.54 ($€4.13 * 1.1$ after union negotiation). With all the savings associated with the utilization of the new machine, such as salaries, maintenance supplies, and workers' compensation, the project brings returns to the company without incremental sales in all cases. This project only accounts for the incremental sales to the company. Therefore any decreases in sales from the original output of the old machine will not affect the cash flows of this project. The worst case scenario was used as the break-even point calculation. By setting the IRR to the cost of capital and shaping all assumptions to bring NPV to as close to 0 as possible, the highest severance pay the company would be able to negotiate with the employees to keep the project would amount to 121% of the operators' annual salary and 130% of the maintenance workers' annual salary. Even at the worst case, the company receives an IRR of 9.86%, equal to the expected IRR of 9.86%.

Supporting Calculations

The company receives savings annually due to the major decrease in the number of operators needed to run the new machine. The power consumption for the new machine is higher compared to the old machine, but the increase is only by €14,550 annually. Due to the nature of the old machine (semi-automated), the company is subject to a higher expense for workers' compensation. An average of 3% was applied to each worker's salary (before benefits) for workers' compensation and the total savings for this liability is €9,309 annually. Capital Expenditure was calculated by subtracting the total cost and setup of the new machine, €1,010,000, with the proceeds from the sale, €130,000 and the tax savings from the loss of the sale, €66,740. Since the machine is manufactured in the US, it would be strategically sound to assume the purchase of spare parts, 3% of total machine cost, in case of malfunctions. The capital expenditure along with the spare parts and first year maintenance contract is capitalized and affects depreciation for all 8 years.

The old machine has an expected operating life of 6 years at the time of the purchasing decision. The new machine will have an operating life of 8 years, extending to 2008 for analysis. To properly account for incremental sales and benefits of the new machine versus the old, the cost of maintenance supplies is increased for the old machine starting from the year 2000 and an increase of maintenance workers for the old machine is used extend the operating life of the machine from 6 years to 8 years. In the worst case assumption a total of 2 maintenance workers is employed for maintaining the old machine. Since the janitorial position is only offered to operators of the old machine, maintenance workers will be offered a higher severance package at the time of negotiation with the union. The cost of the severance package for maintenance workers is calculated as the initial investment cost since they will be laid off by the time the project begins in year 0, and the cost of severance for operators is input in the cash flow of the year these operators get laid off. The assumption that all operators taking the janitorial job will have bargaining right every 3 years was also made.

Conclusion

With the three scenarios and assumption of absolutely no growth in sales for this new machine, the company will receive gains in labor efficiency and quality, as mentioned in the given facts of the purchase. The company should definitely invest in the new machine.