

Corporate Finance
Utilizing the Time Value of Money

Changing Seasons...

July 2x01

You had to choose whether to manufacture Cracker Pop in-house or outsource the production.

You chose to outsource the production of Cracker Pop.

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Due to problems caused by outsourcing production and a drop in long-term interest rates, you now have to reevaluate whether to continue outsourcing or manufacture Cracker Pop in-house. In either case, you will also

Right on Target!

Your objective was to decide whether to set up a new manufacturing facility to produce Cracker Pop in-house or to outsource the production to a supplier. You also had to decide the debt-equity mix for financing the investment. You chose to install an in-house manufacturing plant with Olathe Plant, which was an excellent investment decision. The debt-equity mix you chose for financing the investment was also the most desirable.

When you compare the investment alternatives, Olathe Plant has a higher Net Present Value (NPV) than either the Lenexa Plant or the outsourcing option. This makes it the optimal choice, even though the Lenexa Plant has a higher Internal Rate of Return (IRR).

While evaluating different investment decisions, it is advisable to choose the option with the highest positive NPV. It is considered a reliable criterion for comparing different investment proposals. Most managers follow the NPV rule, which states that a project should be undertaken if the NPV is positive. If there is more than one positive NPV to be considered, the one with the highest value should be chosen.

The other criterion that is usually employed to evaluate different investment proposals is the IRR. As a criterion for choosing between mutually exclusive investment decisions—where one choice has to be made and the others rejected—the IRR is not always a reliable indicator. This is because in IRR calculation, the implied interest rate for the reinvestment of cash flow from the project is the IRR itself. In practice, this is not always a realistic rate for reinvestment of cash flow, and therefore, IRR becomes an unreliable criterion to decide whether one project is financially more viable than the other.

You chose the right debt-equity mix of 60%-40% to finance the investment.

Deciding on the debt-equity mix while financing a project is critical because this has a direct impact on the cost of capital. The best way to determine the optimal debt-equity mix is to locate the point at which the cost of capital of the project is the lowest. This is important because, as the cost of capital increases, the NPV starts to decrease, and conversely, the NPV increases when the cost of capital decreases. NPV is often used to evaluate the financial viability of a project and the composition of the debt-equity can impact the investment decision favorably or adversely.

When capital expenditure is involved in an investment decision, depreciation is an important factor that has to be taken into account. Depreciation reduces taxable income and increases cash flow from operations, and this in turn, leads to an increase in NPV.

Bill Novak wants to extend the Cracker Pop range for all occasions around the year. You now have to decide whether to install a new manufacturing facility, increase labor hours, outsource part of the production, or to choose all three to increase the production of Cracker Pop. On the other hand, you can choose

Cracker at the Top!

August 2x06

Five years after its launch, the popularity of the Cracker Pop range of cards shows no signs of waning. Initially launched for Christmas and subsequently extended to Valentine's Day, Cracker Pop has evolved over time. InnoVistas has consistently been adding new features to make the card more attractive with each passing year. The latest feature to be included is a sweet scent that emanates from the card after the explosion of the confetti. This scent comes in several aromatic flavors.

Bill Novak strongly feels that Cracker Pop should now be introduced for all occasions—everyday and seasonal—and wants it to be available throughout the year. Bill believes that this strategy will effectively thwart small-scale operators who have been producing cheap imitations of Cracker Pop, and at the same time improve the shelf visibility and presence of the product.

This means a dramatic increase in the production of Cracker Pop. Since the manufacturing equipment at Olathe Plant has reached the end of its lifecycle of five years, you can now choose to install a new manufacturing facility, increase labor hours, outsource part of the production, or even opt for a combination of the three. On the other hand, you can choose to outsource the entire requirement.

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Changing Seasons...

July 2x02

You had to decide whether continue outsourcing the production of Cracker Pop or to manufacture it in-house.

You chose to go with Olathe Plant and manufacture Cracker Pop. The debt-equity mix you chose was 60%-40%.