**Customer Lifetime Value**

Students can select any store of their choice but they should consider factors such as marketing costs to attract and keep them as a customer, the length of time they are a customer, and the revenues they generate for the retailer. Most students may not consider the time value of money, so a discussion of a simple calculation of customer lifetime value using the equation below would be useful.

Calculating customer lifetime value can be very complicated. Intuitively, however, it can be a fairly simple net present value calculation. To determine a basic customer lifetime value, each stream of profit is discounted back to its present value (PV) and then summed. The basic equation for calculating net present value (NPV) is:

\[
NPV = \sum_{t=0}^{N} \frac{C_t}{(1 + r)^t}
\]

Where,

- \( t \) - time of the cash flow
- \( N \) - total customer lifetime
- \( r \) - discount rate
- \( C_t \) - net cash flow (the profit) at time \( t \) (the initial cost of acquiring a customer would be a negative profit at time 0)

NPV can be calculated easily on most financial calculators or by using one of the calculators available on the Internet, such as the one found at www.investopedia.com/calculator/NetPresentValue.aspx.

**Example:**

Assume that a customer shops at a local grocery store spending an average of $150 a week and that the retailer earns a 5 percent margin. Assuming the customer spends an average of $150 a week at this store, remains loyal over a 10-year lifespan, a 5 percent annual interest rate, and no initial cost to acquire the customer, the customer lifetime value can be calculated as follows:

A customer who shops at this store and spends an average of $150 a week will spend $7,800 per year (one year = 52 weeks).

At a 5 percent margin, this customer yields $390 per year for this retailer ($7,800 x 0.05 = $390).

Over a 10-year lifespan of shopping at this store, with a 5 percent annual interest rate and no initial cost to acquire this customer, this customer is worth over $3,000 in profits.
Revenues, costs, and retention are the most important variables that a business can influence. Companies can increase revenues generated by a customer by increasing sales of current products, cross-selling, and up-selling. Cross-selling is offering other products to current customers. Up-selling is encouraging customers to “trade-up” to more profitable offerings of the company. For example, the retailer can encourage customers to purchase gourmet food items or higher-margin non-food products, such as health and beauty aids. Another way to increase revenues generated by a customer is through referrals to others. Reducing costs in order to increase margins is another way to increase customer lifetime value. Finally, a business can increase a customer’s life—that is, retain them as loyal customers for a longer period.