**Learning Assessment  
Conch Republic Electronics**

Conch Republic Electronics is a midsized electronics manufacturer located in Key West, Florida. The company president is Shelley Couts, who inherited the company. When it was founded over 70 years ago, the company originally repaired radios and other household appliances. Over the years, the company expanded into manufacturing and is now a reputable manufacturer of various electronic items. Jay McCanless, a recent MBA graduate, has been hired by the company's finance department.

One of the major revenue-producing items manufactured by Conch Republic is a smart phone. Conch Republic currently has one smart phone model on the market, and sales have been excellent. The smart phone is a unique item in that it comes in a variety of tropical colors and is preprogrammed to play Jimmy Buffett music. However, as with any electronic item, technology changes rapidly, and the current smart phone has limited features in comparison with newer models. Conch Republic spent $1,000,000 to develop a prototype for a new smart phone that has all the features of the existing smart phone but adds new features such as WiFi tethering, dual cameras, and larger screen. The company has spent a further $400,000 for a marketing study to determine the expected sales figures for the new smart phone.

Conch Republic can manufacture the new smart phones for $550 each in variable costs. Fixed costs for the operation are estimated to run $6.1 million per year. The estimated sales volume is 205,000, 215,000, 175,000, 125,000, and 75,000 per year for the next five years, respectively. The unit price of the new smart phone will be $799. The necessary equipment can be purchased for $40.5 million and will be depreciated on a seven-year MACRS schedule. It is believed the value of the equipment in five years will be $6.1 million.

As previously stated, Conch Republic currently manufactures a smart phone. Production of the existing model is expected to be terminated in two years. If Conch Republic does not introduce the new smart phone, sales will be 95,000 units and 65,000 units for the next two years, respectively. The price of the existing smart phone is $699 per unit, with variable costs of $350 each and fixed costs of $4.3 million per year. If Conch Republic does introduce the new smart phone, sales of the existing smart phone will fall by 35,000 units per year, and the price of the existing units will have to be lowered to $499 each. Net working capital for the smart phones will be 25 percent of sales and will occur with the timing of the cash flows for the year; for example, there is no initial outlay for NWC, but changes in NWC will first occur in Year 1 with the first year's sales. Conch Republic has a 35 percent corporate tax rate and a required return of 18 percent.

Shelley has asked Jay to prepare a report that answers the following questions:

1. What is the payback period of the project?
2. What is the discounted payback period of the project?
3. What is the IRR of the project?
4. What is the net present value of the project?
5. At what selling price would the company be indifferent to taking on the project? (NPV = 0)
6. At what variable cost would the company be indifferent to taking on the project? (NPV = 0)
7. What recommendation would they make based on the pro-forma statements?