

Scenario:

Apex Electronics is a leading electronics manufacturing company specializing in consumer electronics such as smartphones, tablets, and wearable devices. The company has a strong market presence in North America and Europe but faces intense competition from other global brands. As a result, Apex Electronics is considering entering the smart home devices market with a total addressable market (TAM) of \$10 billion (125MM units), with an expected compound annual growth rate (CAGR) of 15% in the number of units over the next five years. The growth is expected to keep at 5% after that.

Assumptions:

- The Marketing team recommends an average price of \$120 per unit, but increased market competition will result in 5% per year price reductions for the first three years. Once the market stabilizes in year 4, price declines will continue at 2% annual declines.
- Apex Electronics aims to achieve a volume market share of 1% in the first year and then increase by 1% annually until reaching a 5% market share.
- The cost to manufacture each device is \$90 per unit, not including depreciation and amortization. Apex expects to achieve productivity gains of ~5% each year for the first three years and then 2% annually.
- Startup costs for building a manufacturing plant are estimated at \$100 million. Initial marketing and product development costs are \$50 million. In addition, the company plans to invest \$30 million in distribution and logistics infrastructure.
- Startup costs will be amortized for five years.
- The company's effective tax rate is 25%.
- Annual operating expenses, including ongoing sales and marketing, research and development, and general and administrative expenses, are projected to be 18% of total revenues. These expenses are incremental to the startup costs and are expected to decrease by one percentage point annually until reaching 15%.
- Apex Electronics has access to capital at a 12% cost of capital, including debt and equity.

Objective:

As a potential Sr. Finance Analyst, your task is to evaluate the financial viability of entering the smart home devices market for Apex Electronics. You must create a presentation using PowerPoint to showcase your analysis. Build a detailed profit and loss (P&L) statement using Excel based on the provided assumptions.

Based on your financial analysis and additional insights and/or methodologies, provide a recommendation on whether Apex Electronics should move forward with this business proposal.