8.4: Capital Budgeting Process

It is reasonable to argue that capital budgeting is the most important factor in maximizing shareholder wealth. Good capital budgeting decisions can generate hundreds of millions (or even billions) of dollars for shareholders as often a successful project lays the foundation for many more on top of the original. Poor capital budgeting decisions can destroy wealth almost as quickly (especially if the firm does not recognize failure quickly enough and continues to throw good money after bad). While we will focus only on a small portion of the process (making the decision), it is worthwhile to look at the process as a whole.

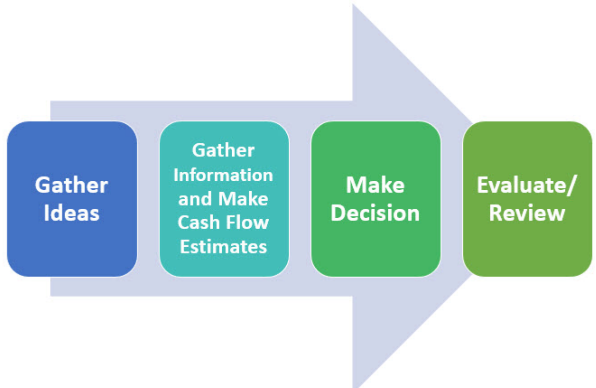

Figure 8.4.1: Capital budgeting process

Generating ideas

The process starts by generating potential ideas for capital budgeting projects. These may be projects to improving existing processes within the firm (such as updating current manufacturing equipment or introducing new software to streamline our distribution) or it could be developing new product lines.

Gathering information and making cash flow estimates

A challenging and critical component to capital budgeting is the process of trying to forecast the relevant cash flows. This typically involves input from many areas of the firm (marketing may estimate sales levels and pricing of a new product, accounting may help with cost estimates, operations will discuss feasibility and labor demands, etc.). Here we must estimate how much it will cost us to initially purchase and implement new equipment, the life span of the project, the marginal revenue it will generate each year, the marginal costs associated with the project each year, etc. While there is a lot of subjectivity and forecasting involved here, the better we do at getting things right in this stage, the better our results will be. If this stage is done poorly, the rest of our analysis will not be very useful (garbage in, garbage out).

Make decision

This is where we focus our attention for this class. Given what we know about the cash flow estimates above, we evaluate whether or not the project will help us add value for shareholders. If yes, we pursue the project. If not, we reject it.

Evaluate/review

This is an important (and difficult) part of any decision-making process …evaluating the results. What makes this difficult is we need to avoid falling into the “Results Oriented Thinking” trap. For instance, consider a project that has a 25% chance of making $50 million and a 75% chance of losing $10 million. On average, we will make $5 million for taking the project (it is a good project). However, if we lose $10 million, does that mean we shouldn’t have invested? No! Taking the project is a good decision with a bad outcome. Unfortunately in practice this is harder to evaluate as it is hard to distinguish between bad forecasts and bad outcomes. Therefore, in evaluation we should evaluate the process for biases (do we tend to underestimate risk or overestimate projected revenues) instead of just focusing on the outcome itself.