"Risk free" plans in a risk filled world

Overview

"Risk free" business plans do not exist, so why do we keep building them? More often than not, the corporate planning process is a long march of rolling up single point estimates that may mask the risk, both lost opportunities and potential downsides, underneath those plans. These "risk free" plans, or put another way, single point plans, also fail to recognize the organization's ability to respond to unfolding uncertainties. However, when organizations capture uncertainties, they must manage the complexities that can arise and design approaches that avoid unwieldy analysis. The following paper shows how **organizations can use risk analysis to build more value into their plans** without creating undue burden in the process.

Value Solution Keys

- Employ a limited number of scenarios at both the enterprise and business unit level
- Build cases which capture management's response to new information
- Test response approaches and improve business plan designs
- Document and communicate the suite of endorsed plan responses

"Risk free" vs unwieldy analysis

Corporate planning processes can often generate "risk free" plans. Please do not get excited.

By "risk free," I mean plans that represent a single-point outcome, often called the base case, which fails to represent the uncertainties of the business. Organizations roll up these base cases, flex a few key variables, such as prices, sales volume, exchange rates and such at the enterprise level. The larger the organization the more likely the above situation is to exist. This can be due to variety of factors but it often a result of the long march known as the corporate planning process. With a roll-up, increasing levels of management apply their judgment to their business unit plans, weighing the uncertainties and risks. By the time this process comes to an end, there is no time to consider alternatives for those business units at the enterprise level, and a single case for the enterprise is reviewed and approved.

And it is full of risk. Why?

Once the plan is approved, another process is set into motion that is shorter yet still a long season of goal setting that is cascaded down the organizational chain, and the company loses its ability to respond to changing circumstances, to take advantage of opportunities and to avoid downsides, both of which are risks. However, there are other consequences for this single-case approach, listed in Table 1.

Table 1: Single point business plans fail to…

- Account for management response to uncertainty
- Uncover sub-enterprise uncertainties
- Uncover biases, both positive and negative
- Develop options to respond to changing conditions
- Capture an accurate performance range for the enterprise
- Identify leading indicators and external signs to signal response
- Uncover risk mitigation steps
- Link planning with enterprise risk management efforts

Alternatively, some organizations may extend their enterprise risk analysis to include probabilistic analysis (e.g. Monte Carlo). However, this fails to address the shortcomings of conducting this at the enterprise level only and introduces additional variables for evaluation which may not provide useful information for decision making.

Other organizations may have businesses submit two or more cases, reflecting different options for development, but still failing to capture response decisions to key factors to those factors. Still others may carry out detailed probabilistic analysis at both the enterprise and business unit levels, but at the cost of significant complexity, particularly for larger organizations.

A practical approach

The following approach overcomes the failures of single-point business plans in a practical fashion. The effort involved in the initial construction of the framework pays for itself by helping the organization focus on key uncertainties and developing improved response options to both favorable and unfavorable developments leading to increased shareholder value.

Step 1 – Scenario generation at both the enterprise and business unit level

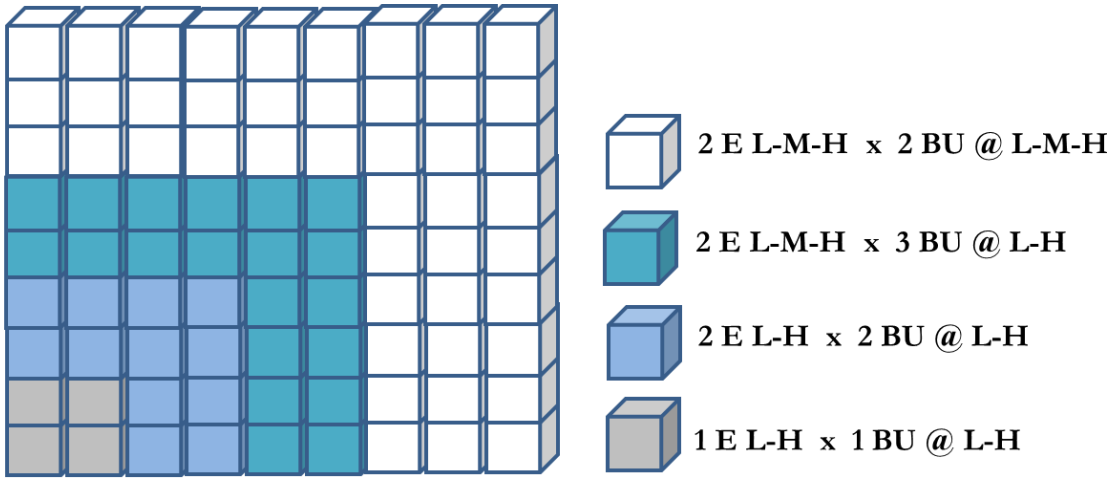
The first step is develop scenarios for evaluating a range of circumstances to which the organization may face. A tiered approach is used:

- Enterprise level – Starting at the enterprise level, the organization identifies the key external drivers for enterprise performance delivery. This may include market demand and competitor behavior and their impact to commodity prices, major supplier inflation, significant changes in regulation, etc…

- Business unit level – Next, the organizations identifies the key drivers for performance delivery for major business units. These should not duplicate the enterprise drivers, but either tier from the enterprise factors when applicable, or be unique factors that are material for the business unit's financial contribution to the enterprise.

A consideration is to keep the number of drivers for creating the scenarios simple, and limit, if possible, to no more than three key factors at each of the levels. Figure 1 illustrates the impact of not limiting the number of variables and permutations:

Figure 1 – The impact of additional enterprise (E) and business unit (BU) variables and permutations of low (L) – medium (M) – high (H)



One consideration for the number of scenarios is to identify where it is logical to assume that variables are strongly correlated. For example, a higher price for the product could be linked to a general condition affecting exchange rates and linked to higher supply chain costs given the demand for services and equipment in the section. Many cases will have the same physical case for each scenario, so while the number of cases may increase they may be similar across several scenarios.

This approach requires thoughtful consideration of the number of scenarios to apply, and drives discipline for choosing which variables to use for evaluating the uncertainties which matter most.

The final part of this step would be the assignment of probabilities for each scenario.

Step 2 – Build cases which capture management's response to new information

Having established the range of scenarios to apply to each business unit, the next step is to develop a case for each scenario. Each case should reflect the business unit's interventions if the situation in each scenario is known. These interventions would include but are not limited to timing and scope adjustments for project plans.

For business units with distinct elements of their opportunity set, they may provide a set of scenarios for each element. Great care should be exercised so as not to cause a proliferation of cases to track, when each business unit case could include a consideration of how all of the elements for the business unit would be adjusted.

Step 3 – Test response approaches and improve business plan designs

With the cases built for each business unit under each scenario, the organization can model the consolidated set of cases to test the impact to enterprise performance.

One modeling approach would be a weighted sum average of all cases using the probability of occurrence for each case multiplied by the case statistics. Another would be to apply a Monte Carlo approach to test for the probability distribution of outcomes given the uncertainty values applied.

At this stage, analysis of the results can point to where the key sources of uncertainty for the enterprise. It will also facilitate a challenging discussion of the weightings for the scenarios and the robustness of the interventions. It will also allow teams to test different plan designs that allow for the obtaining of information that can alter the probabilities and improve the risked outcome. This can range from assessments of the value of hedging to reducing technical risks of the enterprise and which of these options will improve the value of the enterprise considering their option cost.

Step 4 – Document and communicate the suite of endorsed plan responses

The final step is to document and clearly communicate not just the base case that is endorsed as the plan for both internal and external stakeholders, but to include the identified interventions and leading indicators should certain circumstance emerge. This is where organizations can lose the value gain from the steps to this point in approach. Without documenting the interventions and indicators, the enterprise could wind up reworking options in a reactionary environment.

Considerations of business nature and time scale

In creating the cases which accompany the scenarios, it is important to consider both the business nature and time scale of the business units. In the short run, large capital projects may not lend themselves to optionality. However, optionality should be pursued where possible. For long-term planning it is important to evaluate contingency decisions. This is particularly important in industries such as oil and gas, mining, pharmaceuticals and technology where success and failure of any stage of the prospect is the largest source of uncertainty with mitigation plans that lead to very different plans up to and including sale or abandonment of the prospect.

Concluding thoughts

The approach outlined in this paper not only incorporates uncertainty is the development of a business plan but also recognizes the interventions available to the organization to respond to those uncertainties thereby reducing risk and increasing shareholder value. It also mitigates against obsolescence that can plague planning processes when roll-ups are finally done, a base case approved and targets cascaded down and the environment has already changed.

The approach allows an organization to efficiently obtain the features in Table 1 that are missed by applying single-point forecasting for business planning. Monte Carlo techniques can be applied to the probabilities assigned to the scenarios to help further model the range of uncertainty and risks. However, this is applied after the cases for each scenario have been developed with an assessment of how the organization can respond to circumstances. Applying Monte Carlo to base cases fails to capture the effect of available options and simply models passive risk. More sophisticated Monte Carlo techniques married to options are available but may or may not have incremental benefit.

Given the value of flexibility to an enterprise by building risk assessment into the plan, there is a strong business case for its inclusion and making improvements to the wider business planning process to provide the capacity for this analysis.

About the author

Jeff Morgheim is the founder and principal of Edge Strategic Consulting, LLC. His clients are able to "quantify the unquantifiable" to make high stakes decisions with confidence. Jeff is an experienced financial executive with nearly 25 years of execution in the oil and gas industry at both BP and Chesapeake.

When executives need to build confidence into their decision making processes, they call on Jeff. He has developed strategic and planning processes at BP across the globe. While at Chesapeake, Jeff led several organizational transformation efforts in strategic and business planning, as well as performance management. One of the more challenging efforts involved the successful formation and launch of a multi-year, enterprise resource planning program involving 400 employees, consultants and contractors.

When executives face a crossroads, Jeff has been called. At BP, he served as BP's climate change director. He led successful efforts to tackle ineffectual climate policies and to promote alternative approaches which were technically and economically sound. At Chesapeake, he developed the first corporate budget which balanced cash flow with investment, and deployed its first portfolio analysis process to underpin its strategic plans.

When crisis strikes an organization, once again, they call upon Jeff. He served the BP executive team during the Macondo oil spill in and supported the Gulf of Mexico restoration efforts and regulatory strategy. He has a singular, unique perspective on all facets of crisis planning and crisis leadership. When Chesapeake faced its own corporate crisis in 2012, they called on him to develop planning and performance management processes to stabilize the company.

Throughout his career, he has succeeded in bringing the finance and HSE functions together as partners to reduce risk and create value.

He is a graduate of The Johns Hopkins University with degrees in both Economics and Russian Language.