Approaches to Calculating Pwin and Effectively Apply the Results

In the early stages of pursuing a program, understanding the probability your company has of beating the competition is key. This calculation is critical for management to prioritize pursuit opportunities and investment decisions. Generating a *Probability of Win* or *Pwin* model will not only help determine your chances of winning a contract but provides your team with essential information and resources to develop win strategies and proper tactics to execute those strategies. Two approaches to calculating Pwin are discussed and analyzed, however, in order to formulate accurate Pwin results, essential information needs to be researched and collected.

Essential Steps

Conducting a Strengths, Weaknesses, Opportunities and Threats (SWOT) assessment will help to understand the competition and your current standing. Steps to make the assessment are listed below.

1. Gather objective data on your competitors

2. Assess your company's strengths and weaknesses – be objective

3. Recognize your weaknesses and develop a plan to improve your score

4. Exercise your plan to boost your score and run the model again

First, identify any known competitors and key information, including organization, location, incumbency, key company individuals etc. Outside sources are a great resource. For a thorough SWOT assessment and to understand the competition, collect and analyze the following list of data:

- *Market segmentation*
- *Business objectives/goals/strategies*
- *Financial assessment*
- *Probable executive leadership, including the program manager*
- *Present and past customers*
- *Products*
- *Past winning and losing programs*
- *Current level of performance*
- *Advantages and disadvantages*
- *Possible teaming arrangements*
- *IR&D budget and initiatives*
- *Recent acquisitions, mergers, or other actions indicating a potential market share change*

As you develop a SWOT assessment to determine each competitor's capability to meet the customer's requirements, you will also discover likely technical, management, cost/price, and past performance approaches from the competition as you consider the following questions.

1. *What will each competitor most likely do?*
2. *How will each competitor meet the customer's needs/requirements?*
3. *Will each competitor focus on past performance as a key discriminator?*
4. *Why does each competitor think its approach will win?*

Your team can also perform a capability gap analysis by determining the competitors' skills, facilities, technologies, etc., to mitigate their positions.

Secondly, conducting an internal analysis of your strengths and weaknesses will give an honest evaluation of your probable standing to win the current program but will also enhance your company's ability to be more competitive for future program bids. It is crucial that you take an evaluation of all areas – technical capability, management capability and impact to your company's overall strategic goals. Outside sources are objective and ideal in helping assess your company's strengths and weaknesses. Once these are identified, score them against the competitions for an SWOT measurement as shown in Table 1. Develop a plan to improve on the weaknesses and apply discriminators to showcase your strengths. You should see improved scores on the Pwin model as you put these tactics into place.

Table 1. SWOT Assessment Summary

Evaluation Criteria Item	Weight (%)	Competitor A Discriminators	Est. (%)	Home team * Discriminators	Est. (%)
Technical	40	Incumbent product provider, but old and not compliant	34	NDI has low -risk modification path to compliance	38
Management	15	Existing management team	10	We have some management support available	8
Cost/Price	20	Incumbent product is old technology and high cost	15	Large current market offers low unit cost	20
Past Performance	25	Some good performance on relevant programs	23	Some average performance on relevant programs	22
Net Scores	100		82		88

* Includes customer and internal analyses when developing discriminators

Conduct Pwin Calculations

Now that you have collected data from your SWOT assessment, you can use one of the model approaches to calculate your Pwin.

Approach A

One model approach to calculate Pwin is to take the evaluation criteria that are likely to be used by the customer against your proposal bid and score your company and the competition against these criteria. A model of this type generally requires a score difference of 3% or more to be statistically meaningful. A sample Pwin scoring approach is given below. Often, additional criteria for "intangibles" are factored into the model such as "customer relationship". These are implemented more comprehensively in the second approach.

Table 2. Pwin Table Model

Criteria	Max Possible Score	Your Team	Competitor A	Competitor B
Program Management	200	160	180	140
Technical Approach	200	120	140	170
Technical Risk	200	120	100	100
Realistic Cost	200	140	120	180
Past Performance	200	130	60	180
Total Scores	1000	670	600	770

Your Pwin =	670/(670+600+710) =	**0.33**
Competitor A Pwin=		**0.29**
Competitor B Pwin=		**0.38**

In this example, Competitor B appears to have the highest Pwin and your team is in a statistically relevant second place. Many companies only use the Pwin tool to decide whether or not to pursue a program. However, the real payoff from developing a Pwin is identifying your company's weaknesses against your competitors' and then establishing a plan to improve your scores where possible. As an example, your company above has a lower score in "Realistic Cost" (140) than Competitor B (180). One plan to improve your likely score in this area might be to bring in additional cost modeling expertise to help you arrive at a best cost estimate. You might even cite the cost model that you used in your proposal. A more thorough plan to boost scores is discussed later.

Approach B

Another approach similar to the first model first starts out with calculating a base Pwin generated from the number of competitors and number of anticipated awards. The more proposals being evaluated, the less your numerical probability of winning.

The base probability estimate is figured by dividing the number of awards by the number of competitors as illustrated.
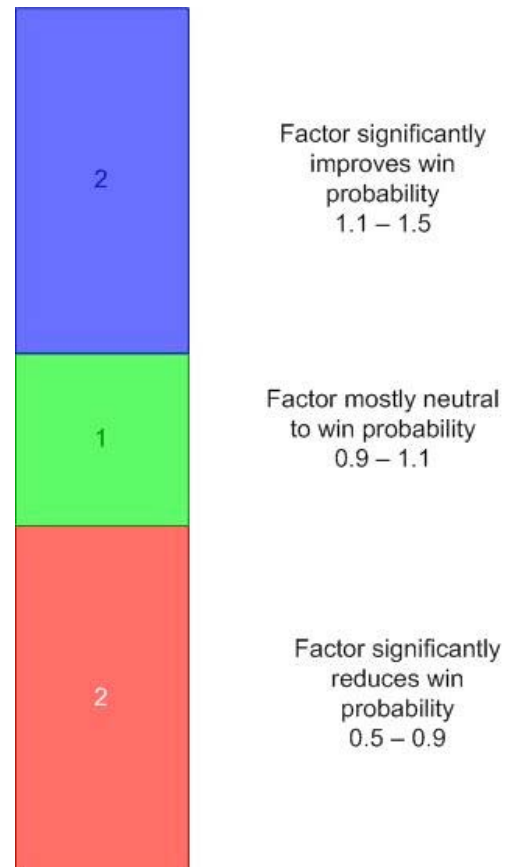
$$Pwin = \frac{N \ awards}{N \ competitors}$$

Additional factors can be translated into numerical values that can be used to either increase or decrease the base probability assessment. The following identifies the major factors affecting the win and estimates them against number of awards and competitors. The major factors are as follows:

- The proposing organization's domain expertise in the key areas that dominate the evaluation criteria
- Familiarity of customer with proposing organization
- Familiarity of customer with proposed concept and approach
- Proposal conformance to customer requirements and desires
- Understanding of customer needs and desires
- Proposal pricing factors relative to competition
- Existence of lack of discriminators
- Past performance with customer
- Likelihood that the opportunity will be funded

These factors will vary between 0.5 and 1.5 and are multiplied against the base probability estimate to knock down the intrinsic win probability or to enhance it as follows:

$$Pwin = \frac{N \ awards}{N \ competitors} \bullet F1 \bullet F2$$

2

Factor significantly improves win probability
1.1 – 1.5

1

Factor mostly neutral to win probability
0.9 – 1.1

2

Factor significantly reduces win probability
0.5 – 0.9

Applying the Results

Once you perform the Pwin exercise, your company has valuable information to improve your probability of winning the immediate proposal bid as well as future bids. Most instances will require your company to take immediate action to identify your company's weaknesses shown in the model, make a plan to fix them and execute the plan to ultimately improve your score. Using outside consultants offers an objective perspective and helpful information.

The absolute value of the Pwin score may not be as important as understanding your relative position to the other teams. More importantly, with the perspective of your competitive standing, your team has the opportunity to focus on a plan to do something different and better that will distinguish you from the rest. The following table demonstrates how to boost scores and see results.

Table 3. Model plan to boost Pwin scores

Criteria	Max Score	Your Team	A	B	Plan to Improve Score	Your Improved Team
Program Management	200	160	180	140		160
Technical Approach	200	**120**	140	170	Plan: Innovative Engineers, Investments, Research past	**170**
Technical Risk	200	120	100	100		120
Realistic Cost	200	**140**	120	180	Plan: Additional Cost Modeling, fresh look at costing approach, BOEs on real programs	**180**
Past Performance	200	130	60	170	Lessons learned, successes	**150**
Total Scores	1000	670	600	760		780
Your Pwin		670/(670+600	**0.33**		780/(780+600+760) =	**0.364**
Competitor A Pwin=			**0.30**			**0.28**
Competitor B Pwin=			**0.37**			**0.355**

To illustrate, your company may score lower than the competition in "Technical Approach". Work with the technical staff to understand where the technical design is weak and improve the technical portion of the proposal. In addition, research past technical designs for reference. Talk with the customer on the improved design to make sure it agrees with their requirements and what they want. Run the Pwin model again.

Conclusion

Assessing the competition and taking an objective look at your company's position provides the most accurate data to perform a Pwin. If conducted early in the capture phase and thoroughly, the proper determination of win probability allows for more informed bid decisions as well as better estimates of future revenue trends.