

Evaluating project proposals: Part 2

Strategic and technical considerations

This is the fifth in a series of articles on projects. In earlier articles, we learned the impact of projects that are not done right, how to estimate project costs, how to estimate the benefits of projects, and how to evaluate projects with an emphasis on financial considerations. In this issue, we examine other considerations that must be taken into account in the evaluation of project proposals.

BY LEN MIDDLETON

Do we really need experienced senior management with good judgement skills to evaluate potential maintenance and engineering projects? Can we not just feed the numbers into a spreadsheet, crank through them, then just select those scenarios that give us the best results?

You could do so if financial considerations were your only concern. Paradoxically, some of the considerations that cannot be readily quantified can have greater value than those that can be quantified. Let us look at some of these issues and how we might evaluate and compare them with other project proposals.

Strategic considerations

There may be strategic initiatives that an organization may undertake. These may involve changes in the market segment or customer focus. These can include changes in products or services, e.g. broader product or service offerings, or new product or service introductions, and so on.

There can also be initiatives to more effectively compete in the marketplace. These changes can include responding to a competitive situation, obtaining first mover advantage in a competitive market, or supporting a current strategic initiative.

Your own organization may have had these or similar types of strategic initiatives they have undertaken, much of it depending upon the business environment and the organization's values and focus.

Tactical considerations

Tactical initiatives can be used to support strategic plans or they may be needed to support the business. It may be necessary to replace assets that are no longer effective or may not reliably support current production or service volumes. There also may be new regulatory requirements that need to be met or to address non-compliance with existing regulations, including environmental, health and safety, or regulations particular to an industry (e.g. pharmaceuticals).

Structured evaluation

What is the process your organization uses to evaluate those strategic and tactical initiatives and prioritize them in relation to the initiatives with quantifiable and calculable returns on investment? Is it a transparent and structured process? Or does it often seem like pet projects get approved while others of seemingly more worth do not?

How do you balance return on investment, potential risk and non-quantifiable benefits? How can you take something that can be extremely subjective and apply some objectivity to it?

Scoring system

Working with a couple of clients, we developed a structured system to evaluate and prioritize project proposals. The system involved scoring the various aspects of the project proposals. The scoring included project justification and

urgency, alignment with strategic initiatives, severity and probability of risk, and relative financial benefit.

In the one case where the critical resources needed to execute the projects were in short supply, we also provided a system to record the estimated person-hours for the level of effort for each quarter the project was scheduled, then calculated resulting FTEs (full time equivalents) required to execute the project, as well as an estimated cost for internal resources by resource type (e.g. project manager, facilities engineer, process engineer, financial analyst, etc.).

Given the shortage of resources in some industries and how lean some organizations are, the available resources to effectively execute projects may be a bigger constraint than the availability of capital. This problem can also reduce the disparity in evaluation of proposals where internal resources are used rather than outside resources that directly hit the estimated project costs.

The information was summarized in a single sheet and included instructions for completing the form. The area described included project title, project background (why are we doing this?), scope definition, project objectives, project sites, business case financials, project justification/prioritization, business benefit and financial analysis, risk analysis, staff resourcing, and proposed project timing and budget.

The tool used was a spreadsheet with multiple worksheets to capture

the information for the different areas of evaluation and a summary page to bring it all together.

The impact with one client resulted in it focusing on projects with the highest scoring. In fact, it was easy. Enter the information on the project score and estimated cost into a spreadsheet and sort the projects by score, run an accumulated total on the estimated costs and identify the cut-off point for projects likely to be approved based on the available budget.

This allowed the company to focus its efforts and scarce resources on critical projects and minimize the effort expended on projects with little likelihood of progressing beyond the initial concept phase — once the expected cost and value to the organization was understood.

This resulted in a situation where if it was understood that if there was little likelihood of the proposal scoring well, it died quickly and minimal effort was wasted.

The results of the structured evaluation process do need to be audited and evaluated to ensure the right projects are getting done and the prioritization is appropriate to the organization's focus and values. An audit initially needs to be done to ensure the scoring is appropriate, and then regularly to ensure the process and any changes to it continue to focus the organization's resources on the highest value for the organization. If the outcomes are not determined to be correct, then the scoring and weighting can be adjusted to improve the results of the evaluation process.

Impact on maintenance and engineering

As mentioned in my previous article (*Machinery & Equipment MRO*, June 2008, pg. 29), different organizations have different criteria for evaluating proposals, and this will also be the case for projects that are not directly quantifiable.

Again, your finance and accounting group should be able to provide some guidance on what other considerations are included in project proposal evaluations and how those other considerations should be weighted relative the finance considerations.

You should still focus on the financial evaluation of project proposals, but if you are also able to support organizational objectives as well as provide direct financial benefits, then the probability of it being approved are much higher.

The organization's focus on strategic or tactical matters should be communicated throughout the organization. Unfortunately some organizations do not effectively communicate. The information would rest with senior management, and access to this group can vary considerably between organizations. It may be possible to review where the organization's resources are typically allocated (e.g. what projects get approved, on what projects does senior management invest their time, etc.) and from that you could make some intelligent guesses. It may be possible to confirm this information through discussions with senior management, particularly if you have a potential initiative that you believe would support their focus. Do remember that you will need to ensure that you put it in terms relevant to them, such as organizational benefits in a specific area of interest. **MRO**

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Cooper pedestals have bolt hole center distances and base to bearing centerline heights that conform to industry standard SAF dimensions. Cooper SAFC products are designed to replace common SAF 225 and 15 Series units using adapter sleeves. The Cooper SAFC compatible pedestal is available for bearings with shaft sizes from 1-15/16" (SAFC 511) to 5-15/16" (SAFC 534).

SN Pedestal

Cooper housings have bolt hole center distances and base to bearing centerline heights that conform to ISO 113-2. Complete SN assemblies are suitable for replacement of solid, self aligning ball bearings and in most cases 222 Series double row spherical bearings using adapter sleeves. The Cooper SN compatible pedestal is available for bearings with shaft sizes from 2-1/4" (60mm) (SN513) to 5-1/2" (140mm) (SN532).

Cooper Bearing

The pedestals use standard Cooper 01E and 02 Series bearings and cartridges. This makes possible the use of the comprehensive range of Cooper sealing options suitable for almost any application. Please contact our technical department to confirm application load suitability.



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