



Measuring ERP Projects

It is important to not only understand the factors influencing success, but also to have an approach for measuring and tracking an ERP project's success. ERP implementation projects are very different from most other types of projects such as building construction, network installation, etc. The key difference is that there are no precise industry standards, legislated codes, or published performance benchmarks against which success can be quantitatively measured. This lack of benchmarks and measurement techniques has created an environment in which ERP projects are declared a success or failure based on arbitrary criteria, individual perceptions, partisan motivations, or other subjective factors. This article discusses an objective approach to measuring the success of an ERP implementation project.

Deficiencies in Measuring Return on Investment (ROI) Only

In the search for quantitative metrics, many companies have attempted to define the success metrics of ERP initiatives based on a single financial dimension: *Project Return on Investment (ROI)*. Even though this seems to be an objective metric, few companies have successfully defined up-front the expected ROI. Instead, they measure the actual ROI after project completion and compare the two. When analyzing many "successful" and "failed" ERP implementations, it has been found that the categorization of "success" or "failure" could not be correlated to the "official" project ROI in most cases.

The fallacy in this approach is the belief that the implementation of an ERP software package can provide significant business benefits and generate the expected ROI. Too much focus is given to software implementation and too little focus is given to business transformation. It is, in fact, only the change in business models, the changes to a process-focused business organization, and the changes in relationships and processes with customers and suppliers that have proven to provide significant business value. The ERP project can be considered as the foundational backbone that enables such changes and is only the first step in the required business transformation process.

Measurement should also entail a holistic approach that assesses how well the ERP project has established the foundation for business transformation and has provided the organization with opportunities to achieve substantial business benefits. With this understanding, we therefore need to find new ways for measuring the success of these programs.

A New Method of Measuring Success

If we want to measure the success of ERP programs, we need to properly identify the targets to be achieved and the constituents who will be impacted. Then assess whether the targets were achieved and decide how to monitor and measure the level of achievement attained against pre-defined targets. This approach differs from a single-dimensional, purely financial ROI evaluation perspective by having three key dimensions:

- Targets,
- Constituencies, and
- Time frames.

Targets

There are many target types, some of which can be clearly articulated and associated with easily measurable numerical attributes, while others are more qualitative or strategic in nature and do not easily translate into numerical representations. Measuring the achievement of both target types is important in assessing the success of an ERP program. We therefore believe that these targets should be categorized into four groups: Political, Operational, Economic, and Technical with different measurement methods adopted for each group.

Political

Political Targets are typically aligned with new strategic directions, changes in culture or company image in its marketplace, or specific goals of key executive management stakeholders. In many of these cases, the ultimate objective may be clear, but a well-defined path to achieving it is not. Some examples may be increased security risk management, increased focus on customer satisfaction, and the management of risk during a major downsizing.

Operational

Operational Targets represent changes in some of the major operational and organizational structures of the business. Some examples may be the restructuring of regional business models to global business models, the integration of a new acquisition, and the creation of shared services organizations.

Economic

Economic Targets are the most commonly used targets, and they represent specific, tangible goals focused on either revenue increase or cost reduction. Some examples include reduced inventory or manufacturing costs and the increase of revenue due to the introduction of new sales channels.

Technical

Technical Targets represent technical capabilities of the implemented ERP solution and its support organization. These types of targets can normally be well-defined and measured. They can include the retirement of legacy technology, the deployment of faster network connectivity, and improvements in system response time. In many instances, these targets set a level of expectation for the users of the system prior to deployment.

Constituencies

It is imperative to always analyze and correlate the perspectives of key constituents that are affected by such systems. Among them are the following parties:

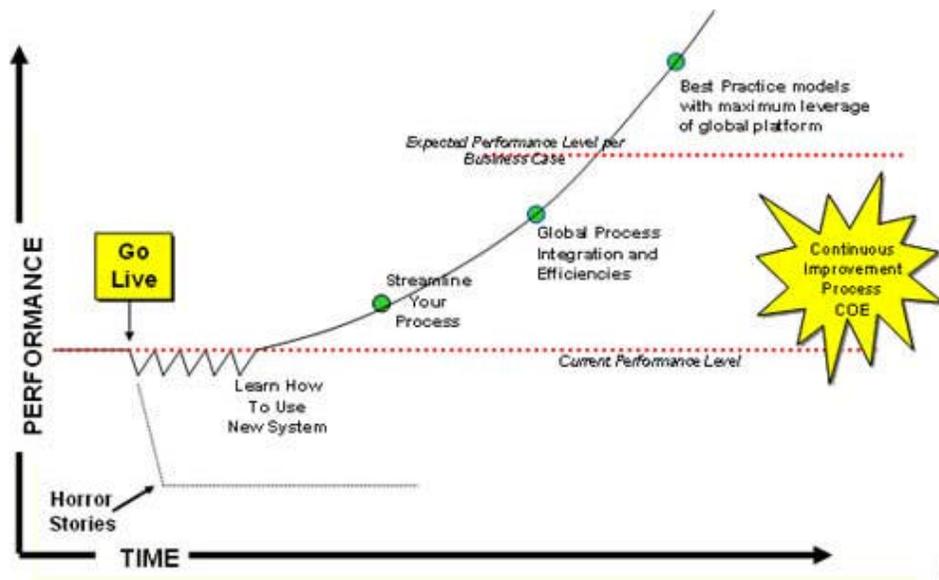
- Executive management and key program stakeholders
- Internal users (e.g. customer support agents, buyers, sales reps)
- External users (e.g. customers, suppliers, partners)

Time frames

It is a known fact that at the time of go-live, organizational effectiveness and performance will invariably be affected due to the learning ramp-up time of users and potential organizational change management issues, as well as normal imperfections in the early lifecycle of complex solutions.

ERP systems are foundational enablers to business transformation. Their success cannot be measured by project timelines but need to be based on longer time frames that incorporate the business transformation impacts. Only by understanding these various dimensions and taking a more holistic evaluation approach can one truly define metrics for ERP programs (see Figure 1).

Figure 1 Performance Changes Over Time



Execution of Measurement

The approach we recommend for measuring and ERP implementation's success is based on an up-front definition that needs to be completed when the program is initiated. It is part of the approval process and includes an ongoing sampling of measurements and trending analysis after the system go-live.

For the up-front definition, we recommend the following three steps.

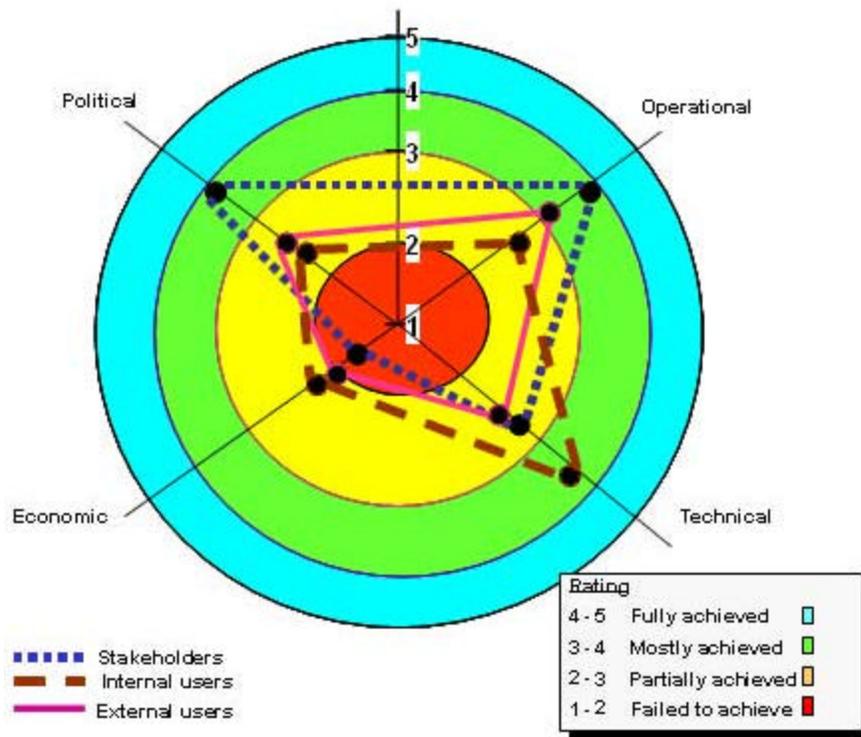
Step 1: Select the top 5 specific targets within each group (i.e. Political, Operational, Economic, and Technical) and clearly articulate the target. In some cases, numerical attributes are possible; in others, they might not be.

Step 2: Align the targets with the various constituencies and define the assessment criteria for validating the achievement or non-achievement of the target.

Step 3: Define the time intervals when the measurements will be performed. Typical sampling intervals could be one month post go-live, three months post go-live, six months post go-live, one year post go-live, and two years post go-live. Over time, one will be able to determine whether more targets are being achieved or corrective actions are required.

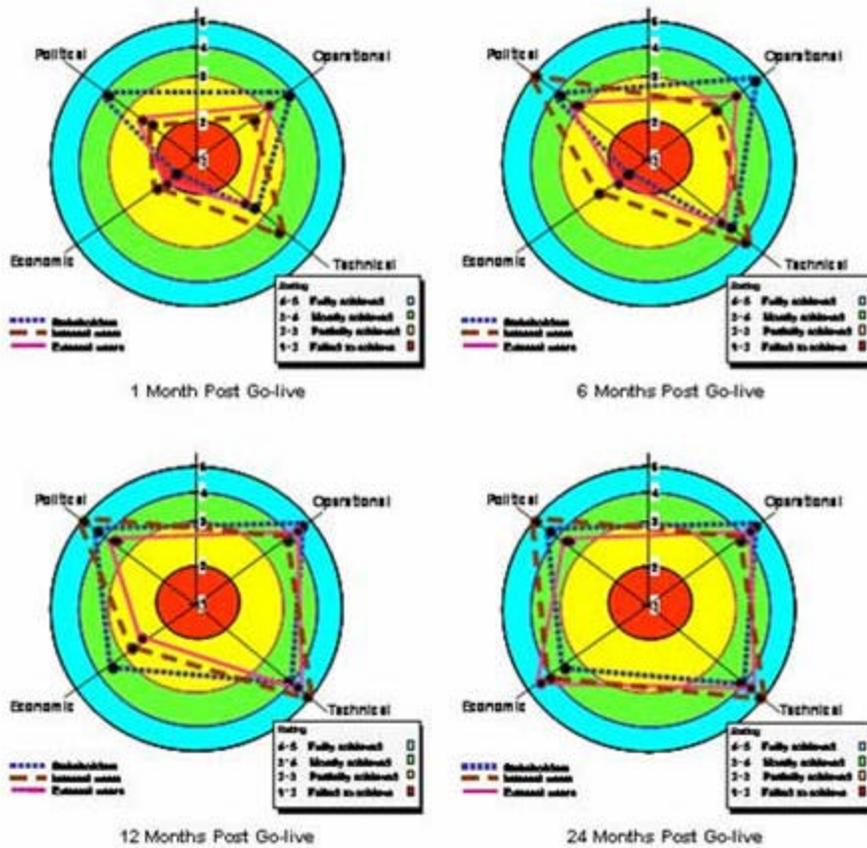
For the post go-live measurement phase, we recommend that all defined targets be assessed, rated, aggregated, and plotted by their respective constituents as shown in Figure 2.

Figure 2 Sample balance scorecard



As planned measurements and observations are performed over time and the trending is observed, it becomes very clear how successful the ERP project has been. Figure 3 demonstrates a typical trending for a successful ERP implementation.

Figure 3 ERP Implementation Trending



Conclusion

We have found that the most successful projects were those where there was a high degree of Political and Operational achievement. On the contrary, the ones that had high Technical and Economic achievement, but low Political and Operational achievements were perceived as less successful in the long term.

To determine the true success of an ERP project, firms must make a paradigm shift that incorporates a holistic approach and multi-dimensional view that includes targets, constituents, and a sequence of measurements over a long-range time frame. Only by transcending the traditional, singular financial view of ROI can one truly identify and differentiate successful ERP programs that provide long-term strategic value.

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