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Project Management Benchmarking for Measuring Capability within the Organisation

By Laurence Nicholson

- Poor Project Management cited as the #1 cause of project failures!¹
- 61% of all IT projects fail!²
- 52% of all projects finish more than 187% over budget!³

Given the fact that projects have a low success history in general as highlighted above, especially IT projects – you only need to look at the press for the latest high profile IT Project gone off the rails – as well as construction projects (Wembley Stadium), it has taken some a long time to realise that in the same way that manufacturing processes are measured for quality, so too should Project Management. The questions are: How do you measure Project Management? What criteria should you use to evaluate the performance of your project managers? What do I use as a reference point?

As with other areas that have been measured for many years such as the manufacturing arena, selecting the correct set of metrics is critical to gathering useful and accurate information for management to act upon. Selecting the **right** metrics is more difficult in this service related arena and care must be taken not to create metrics that are of no value to the process and simply cost the organisation time and money without any return.

The Role of Metrics

It is important to monitor and measure specific areas of performance in order to enable management to determine whether performance levels are being achieved or whether improvements in performance are meeting desired targets. The way to do this is to carefully select the areas to monitor and measure, focusing on the type of performance you are most interested in. This will allow management to identify failures in performance and more importantly enable action plans to be enforced to deal with such failures.

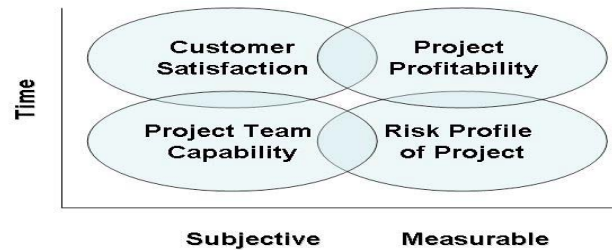
There are two types of measurement that can be taken, measurable (data based) and subjective (opinion based), which change over time, with certain metrics being more relevant to the initial stages of a project and some the later end product stage. Examples of these can be seen in the following diagram:

¹ Source: Gartner and The Standish Group

² Source: Gartner and The Standish Group

³ Source: Gartner and The Standish Group

Benchmark Characteristics



As can be seen, these are overlapping metrics as often inputs can be developed as part of the project and become outputs which in the case of a Project Team capability, can be empirically measured in terms of qualifications gained. Empirical Metrics are typically more accurate and reliable, with the data more often that not coming from an internal system. The difficulty with subjective metrics is that they are often hard to define and update, and have to have some way of maintaining consistency of measurement. That said, the use of customer satisfaction data is a reliable indicator of project success at whatever stage the measurements are taken.

The Role of Benchmarking in Project Management

The primary driver behind any benchmarking initiative including that of Project Management is improvement. Measurements are taken in order to identify performance failures which can be improved to increase efficiency and effectiveness as part of a continuous improvements process.

There are a number of aspects that relate directly to the performance of project management within the organisation that can be summed up in three main headings:

1. The effectiveness of the project
2. The effectiveness of the process
3. The maturity of the process

Project effectiveness is a measurement of how a project is progressing in terms of cost, time and quality, which whilst being very worthwhile metrics are often the only focus of many measurement processes within some organisations. All too often the effectiveness and relevance of the processes around the project are not reviewed against the type and scale of the project. Further to this, a measure of process

maturity will indicate the level of consistency and control there is around the process which indicates the CMMi⁴ level achieved.

The following benchmarks are the primary measures for Project Management to determine the effectiveness of the organisational capability:

Risk Management

To be in a position to have fully identified all risks associated with a project and therefore a response plan for each is a position most of us strive to achieve and few will ever realise. Risk management by its very nature is flawed because it only identifies the things you know you don't know and fails to appreciate the "unknown unknowns". That said, the more risks identified and planned for, the better position the team is in to deliver a successful project.

Risk Management has been identified in best practice as being the single greatest indicator of project process maturity.

Project Cost Performance

The CPI calculated as part of the EVM⁵ process as $EV (BCWP)/AC (ACWP)$ identifies whether a project is under or over budget. This can be applied to individual project tasks as well as the project as a whole.

While looking at costs of a project, a greater scope of costing should be employed to include not only the ongoing resource and materials based costs but also such overheads as "Cost of Quality" which relates to the amount a project is sustaining due to poor project performance.

Project Schedule Performance

The SPI which is delivered as part of the Earned Value Management process is defined as being the $EV (BCWP)$ divided by the $PV (BCWS)$ and indicates whether the project is ahead or behind schedule. The Standard Deviation of SPI is an indication of the ability of the organisation to schedule effectively and accurately.

ROI (Return on Investment)

This is the calculation of the value Project Management is to the operation of the company. It has been defined as being the "calculation of the return that undertaking a project will achieve over a given period of time" (Young). It is widely held that the best method of calculating this metric for a project is 'Net Benefits divided by Costs'. It is possible to identify the percentage return for each cost unit invested by multiplying this value by 100.

⁴ SEI Capability Maturity Model integration

⁵ EVM – Earned Value Management

Staffing

Morale within the project team is a critical aspect contributing to project success and the use of an WESS (Weighted Employee Satisfaction Survey) is a good measure of how your project is fairing. An WESS is a mix of hard and soft measures weighted to support their importance as a predictor of employee satisfaction.

A typical WESS would include the following weighted⁶ sections:

- 40% Survey Results on Corporate climate (pay, growth opportunities, supervisor competence, etc.)
- 25% Stress Index
- 15% VTR (Voluntary Turnover Rate)
- 10% Focus Group Results
- 5% Grievance rate
- 5% Absenteeism and transfer Rate

With staffing being an important factor in the performance of the organisational projects, it is often found that when project resource assignment is managed by an internal human resources type department or division, performance can be increased when compared with one where a project team allocates its own resources. The recognition of project management as a valued service within the organisation is also increased when the HR function co-ordinates the allocation of project resources.

Project Post Mortems

In order for organisations to maintain an effective continuous improvements initiative, full use needs to be made of lessons learned on all projects, and only by carrying out some form of post mortem on the projects undertaken by the organisation can these lessons be identified and used as inputs to future projects, making them more efficient. It is also a method of cross-fertilisation of ideas taken to full extreme through the use of large scale post mortems involving entire divisions in the review so that non team members can take advantage of the lessons learned on other projects.

Project Cycle Time

It is critical to the measurement of project effectiveness that a defined end to the project is stated and the criteria that defines a project is complete is fundamental in measuring the ensuing cycle time. It has been found that where project completion criteria are defined there is an improvement in process performance and maturity.

Strategic Business Alignment

Much of the typical measures focus on the effectiveness of project management within a project, but few focus on the identification of the correct projects to work

⁶ This weighting is according to market research project undertaken during 2006.

on which are aligned to corporate strategic goals. It is important to conduct an internal survey amongst project managers, business unit managers and executives, asking the question: "Are we working on the right projects" and use a scoring mechanism rather than a freeform text response. This can give an indication from the executives that the projects being worked are aligned with corporate goals.

Voice of Customer (Customer Satisfaction)

Failure to ask your customer how you are doing directly contributes to the situation where you think your project is progressing successfully according to all the internally focused metrics, yet you are failing to satisfy the needs of the customer. Communication with the customer on a regular basis is critical to a successful project.

Conclusion

Benchmarking the performance of Project Management within an organisation should be a basic process, but is very much a decision of an individual typically part of a PMO unless the board includes a CPO (Chief Project Officer). Building benchmarking into the heart of the business processes as part of the core decision making activities will result in more efficient project performance and greater profitability of both internal and external projects. This should not be a one-off exercise but become core process and the results should be recorded and measured against the results of many other projects in order to identify trends and improvements over a long period of time.

About the Author



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