

# PROJECT MANAGEMENT AND FIT SIGMA

## PART ONE

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Also here in 2012, the SBR is very happy to be able to continue the series of articles on advanced quality and supply chain management, very kindly provided by our loyal contributor Dr Nevan Wright through the chairman of the board of the SBR, Erik Juul Rasmussen. Herewith a warm thanks to both these distinguished gentlemen from the technical editor! This two-part article describes the benefits of applying the FIT Sigma approach to project management. Part One of the article covers the general perspectives of a systematic approach to project management. Part Two, covering the perspectives of time management, budgeting and quality management in projects using the FIT Sigma approach will be featured in SBR No. 2, 2012.

FIT Sigma philosophy for Project Management is to listen to the voice of the client to provide complete satisfaction. The use of the FIT Sigma approach will almost certainly lead not only to increased client satisfaction but also to more efficient use of resources.

From the client's point of view, Quality has two levels: a basic level and a higher level. At the basic level, common definitions 'fitness for purpose', 'getting it right first time' and 'right thing, right price, right time' apply. In project management right thing, time and price are known as scope, time and budget. Achieving the scope, keeping to budget and coming in on time is the ultimate measure of success for any project. Scope, time and budget are factual and can be measured. But for the client to experience a quality project, higher level needs, often intangible and therefore hard to measure, are required. These intangibles are the client's perception or interpretation of what they see and experience during the course of the project and, often equally important to the client, after delivery service and support. Some of these intangibles are the availability of personnel, courtesy, prompt replies to queries, overall helpfulness, useful advice

and explanations, timely information, openness, no adverse surprises, accuracy of invoices, the level of finish, project delivered in a pristine state, site cleared of debris and so on.

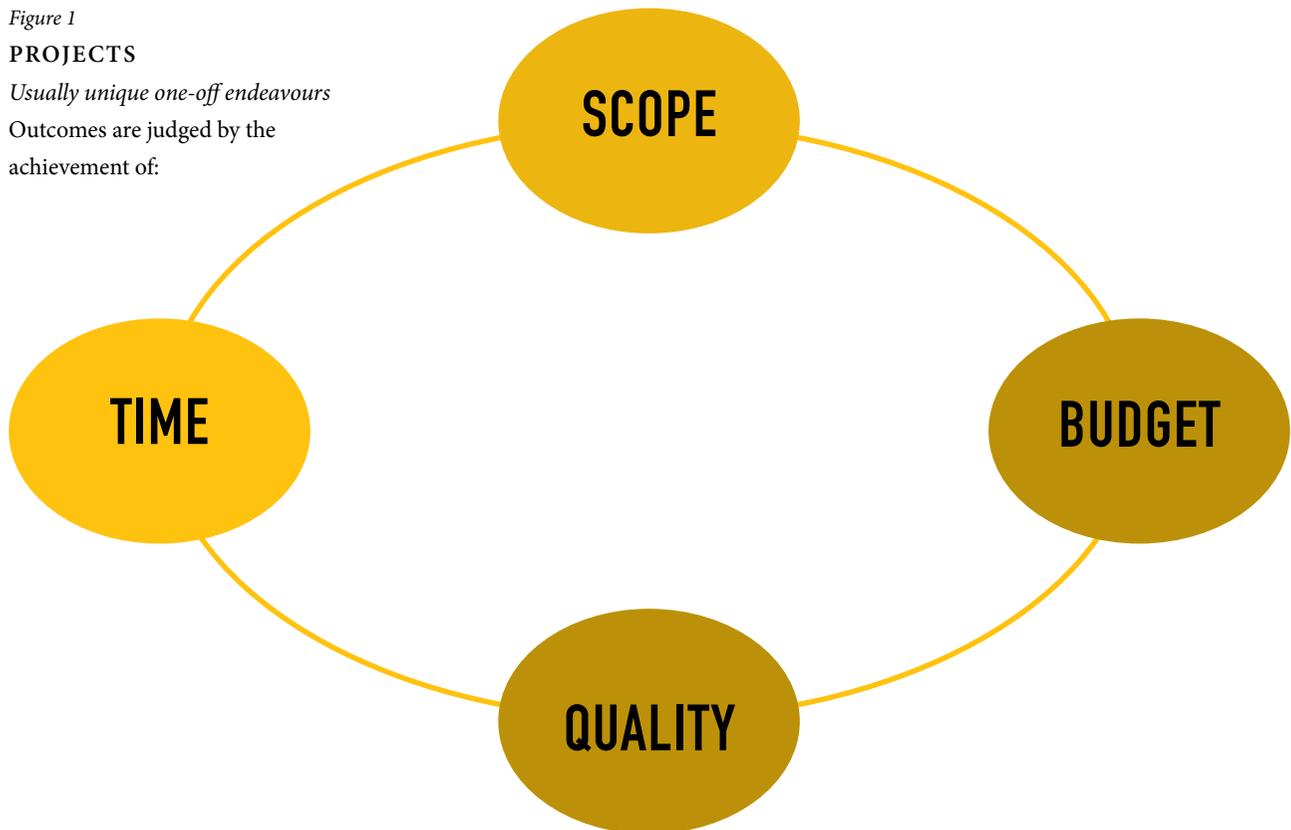
Projects have four basic elements, scope, time, budget and quality. Common problems are the overrun in time and budget and incomplete achievement of the original scope of the project. Subsidiary to these and cutting across all four are: work breakdown (activities), milestones, responsibilities, cost estimation, control of costs, estimation of time, scheduling time and resource, controlling time, risk identification and management, controlling risk, balancing objectives, execution and control, finalization and closeout, follow-up after handover, team leadership and administration, and choice of information system, Turner (2008). With the FIT Sigma philosophy, a whole systems approach is taken covering the four basic elements and the subsidiary issues.

In project management, Terms of Reference is an important element wherein the overall scope, budget and time frame

Figure 1

**PROJECTS***Usually unique one-off endeavours*

Outcomes are judged by the achievement of:



are established. The Brief follows the Terms of Reference and gives depth to the Terms of Reference. The Brief identifies what has to be done to make the project happen. The Brief requires reasonably accurate estimates of resources and key steps or tasks and the skills required for each step. The Brief will also endeavour to establish for each step cost, time and precedence. It is likely that the Brief will also consider responsibilities and authority for the supply of resource. The Brief should not be limited to the above, but should include any issue that will affect the successful outcome of the project, such as establishing stakeholders. Once stakeholders are identified, especially those who are not enthusiastic concerning the outcome, the seasoned project manager will seek to find what the concerns are and, if possible, to reassure them or to find ways around their concerns, Obeng (1994) and Turner (2008).

All of the above, especially the Brief, is based on estimates. By definition, each project is unique and seldom can any planned activity be taken as a certainty. It is a recognised fact that many

Information Technology type projects are not completed as per the original Terms of Reference; indeed many are never completed at all! The very valid reasons given by project managers for these types of failure often are:

1. the client didn't know what they really wanted, and
2. the client kept on changing their mind and kept adding extra features.

In reply, the customer could well say that the project manager did not listen and/or understand the client's needs. The truth will be that there will be faults on both sides due to imperfect communication. Irrespective as who is at fault when things go wrong, the reputation of the project manager will be at stake.

**FIT SIGMA: THREE RECOMMENDATIONS FOR ACHIEVING SCOPE**

The purpose of scope management is to ensure that necessary work is done and that **unnecessary work is not done**. In FIT Sigma parlance, this means that the purpose of the project must be kept firmly in mind and for every proposed action it has →



**A GOOD MILESTONE PLAN IS UNDERSTANDABLE TO EVERYONE, IS CONTROLLABLE BOTH QUANTITATIVELY AND QUALITATIVELY, AND FOCUSES ON NECESSARY DECISIONS. TURNER RECOMMENDS THAT NO MATTER HOW LARGE THE PROJECT THERE SHOULD BE NO MORE THAN 25 MILESTONES AND WITH NO MORE THAN FOUR RESULT PATHS.**



to be asked ‘is this really necessary for the achievement of the project?’

1. Be generous in estimating the resources and time needed for inclusion in the Brief, and then to make sure that the client understands that, due to the novel nature of projects – each is unique and each will have its own set of unexpected problems – estimates of time and money for resource is based on best guesses. Some clients will press for a fixed cost project. If the project is as relatively simple as building a warehouse, reasonably accurate estimates of materials needed and costs can be calculated. But even here allowance should be written in to enable the constructor to recover major price increases of materials and for other contingencies such as problems with foundations, water tables, etc. It does not serve the client well if the construction company goes bankrupt and walks off the job!
2. Communicate with the client. Project managers have to remember that they don’t ‘own’ the project. They are providing a service on behalf of the client. When the Terms of Reference were first written, it could well have been that the client had emphasised finishing on time as being crucial. This does not give the project manager carte blanche authority to spend extra money above budget in trying to make up lost time when delays occur. Likewise if it becomes apparent that the specified completion date is under threat, the project manager has a duty to advise the client as early as possible.
3. Be meticulous in providing variation reports. If a client asks for a change, such as ‘would it be possible to add, or amend’

and the project manager enthusiastically agrees, often the changes are made and the project manager believes that the client has given a firm directive to go ahead. But eventually there is a day of reckoning and the client gets the bill. This will be a problem if when asking for the variation the client did not realise that there would be an extra cost. For example, at an early stage of house construction a request to move a window a metre to get a better view might not seem a big effort (after all the window exists and the house is still at the frame work stage of construction), but this could well take the builder several hours of labour, for which he will charge. The culmination of several such minor changes, all at the request of the client (and perhaps even some suggested by the builder) might add up to several thousand dollars not budgeted for by the client. The FIT Sigma approach is that, no matter how sensible the suggestion and no matter how minor the cost, the cost of the variation be approved by the client before the change is made.

#### MILESTONES

The next level of planning is the determination of milestones. Milestones are each intermediate product or deliverable which builds to the final objective of the project. The benefits of milestone planning are to:

1. Set controllable chunks of work,
2. Show how each chunk of work is related and builds towards the final objective,
3. Set fixed targets,
4. Foster a common vision for all those involved including contractors and sub contractors.

The satisfactory completion of each stage of a project rests on the completion of the previous stage. The deliverable from a previous stage forms the **baseline** for the work in the next stage.

With the FIT Sigma philosophy, the milestone plan is transparent for all to see:

1. For the client it will enable them to follow progress.
2. For the project manager it provides a means to monitor and control progress.
3. For team members it will enable them to understand their responsibilities.
4. For everyone it will show the overall vision.

A good milestone plan is understandable to everyone, is controllable both quantitatively and qualitatively, and focuses on necessary decisions. Turner recommends that no matter how large the project there should be no more than 25 milestones and with no more than four result paths. No matter how big the project, limiting the milestones to no more than 25 gives an easy to comprehend picture of the whole and each milestone becomes manageable. Each milestone is made up of chunks of work. Obviously, within these chunks of work there will be key areas to be monitored, and each chunk will in turn be broken down to have its own set of milestones, Turner (2008). Detailed planning for each milestone before the project begins is NOT recommended. The approach is only to prepare fully detailed plans for activities that are about to start. Planning twelve months out will be out of date within a matter of weeks. ▽

Part Two of this article, covering time management and quality of FIT Sigma in project management will be featured in SBR No.2, 2012.

## REFERENCER

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