

# **An Approach to Six Sigma Project Selection and Team Members' Assignment**

**Omkarprasad S Vaidya,**  
Professor, Operations Management,  
Indian Institute of Management, Lucknow, India  
osv@iiml.ac.in

## **Abstract**

Six Sigma methodology has proven itself to be effective tool for organizational performance improvement. Critical to its success is the project selection and assigning suitable team members for project execution. Though, this task appears to be quite simple and obvious, casual selection and imprudent assignment of team members to the carefully chosen projects may turn futile. In this work, we present a two-stage approach to carefully select Six Sigma Projects (also called as critical to quality) and later, assign the best team members for the projects execution. In the first stage, we select the projects by mapping those with the organization's vision and mission. Here, we use the balanced scorecard approach and the classical Eisenhower matrix. A balanced scorecard approach of evaluating the projects, provides management a valuable insight to their service requirements, and hence, provides clear image for quality/performance improvement. An Eisenhower matrix also called as Urgent-Important matrix, helps decide and prioritize projects by its urgency and importance. This help shortlisting the projects to be delegated to the employee/s.

In the next stage, we consider assigning of the team members to the shortlisted projects. Here, the skill sets of the team members are mapped with those required for selected projects. An extension of Gale-Shapley algorithm is used for this purpose. Gale-Shapley algorithm, also called as stable-matching algorithm, helps in allocating the team-members to the selected projects according to their choices and to the best of the project's requirements. Here, we present an extension to the classical Gale-Shapley algorithm where more than one team members are assigned to a project. The entire approach is presented with an illustration. We hope that this work will not only help the Six Sigma practicing managers but also to executives, involved in shortlisting the key projects for their organization, and also formulating the best possible team given the availability of team members.

## **Key words:**

Six Sigma, project selection, Balanced scorecard, Team members' assignment.

## **Biography:**

Prof Omkarprasad S Vaidya holds a doctoral (Fellow) degree from National Institute of Industrial Engineering, Mumbai. He completed his post graduation in Mechanical (Production) Engineering. Just before joining IIM Lucknow, he worked with IIM Raipur for nearly two years. He teaches Service Operations Management and Quality Management and Six Sigma along with core operations subjects.

He has published number of research papers various journals of international repute.