The Project Managers Guide to Making Successful Decisions, by Robert A Powell and Dennis M Buede

A book review by Ian Jay

Underestimating task completion times is known as the ‘planning fallacy’, this is one of six key biases that relate directly to decision making. During the course of a project, the project manager and team make a large number of decisions. Of these about 90% do not require a great deal of thought and are simple and straightforward or of no great consequence. However, there remains a significant 10% that are important enough and complex enough to warrant thinking about. The authors of this book have set out decision making in the project context and describe examples of problems and the various approaches that can be used to address these problems.

In many cases project failure and causes leading to the failure have been traced to decision making failure. There are three types of decision failure, either it was a poor quality decision, the timing of the decision was inappropriate, or, there was no decision at all. The last of these problems is illustrated in a case study of the Hubble Space Telescope mirror. The authors explain that in this instance there were two primary mirrors built, the one intended for use in space was tested prior to use and found to be flawed. However no action was taken as a result of the tests, no comparison made with the second mirror. Despite the fact the second mirror was built as a back up for precisely the problem that had arisen. The outcome was that the faulty mirror was launched into space and the problem only addressed after the event.

The situations in which problems such as the Hubble mirror arise are complex and multi-faceted. Project managers need an array of different approaches and supporting tools to deal with these problems in a rational and systematic fashion. There is no singe approach or method for all situations, a point the authors recognize and accommodate. The early part of the text provides the context of decision making in terms of project life cycle stages. This chapter is supported by a comprehensive checklist of generic decisions in the life cycle of a systems engineering project. The complex reality of projects is made clear in a chapter that explains the different decisions faced by project management, product development, and the development organization. The project management perspective, for example, has to consider decision level, decision type, the order decisions are made in and the interdependencies between different decisions.

The latter part of the book deals with issues relating to the value system of decision makers or stakeholders, and the application of various methods to handle risk. Kinds of bias that commonly and systematically affects our perceptions are described. An example given is a tendency to overestimate the role of internal factors and underestimate the role of external factors in determining behaviour, a key insight for a project or team leader. Another bias is a tendency to assess the probability of occurrence of an event in the future as greater if it is described in more detail. This has a direct bearing on the assessment of the probability of a specific risk event arising, as well as decisions about how to deal with it.

The book presents well understood tried and tested approaches to decision analysis. The strength of the book is that it brings together the methods of operations research, the psychology of decision making, and the project management context. Some quantitative methods, for instance utility models and value hierarchies, are included though these make up a very small part of the text. For instance, decision trees are described in the appendix and the authors make it clear that these and similar methods are tools that fulfil a small supporting role in the overall decision making context. The entire text is well supported with short case studies which are interesting reading in their own right. These include insights into the development of the Windows operating system, the Sidewinder missile and various other contemporary engineering artefacts. All the cases as well as the points made in the text are referenced. This makes the book a useful source for further research and additional reading.

The authors have a systems engineering and operations research background which makes the text authoritative. The style of writing is clear and to the point which brings material that is usually hard to
access within easy reach of the reader. Some of the subject matter is normally presented in more formal and quantitative styles that make the topic harder to grasp, a problem avoided in this text. From this perspective the book would serve as good general reading for any project manager and could also be used as an introductory text in a training programme for project related decision making.


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