Book review

How to Manage Project Opportunity and Risk, 3rd edition

C. Chapman and S. Ward. Wiley, Chichester, UK, 2011,
ISBN 978-0-470-68649-2, £39.99, 520 pp.

Chapman and Ward's new book is the updated third edition of their second edition entitled *Project Risk Management*. The book has been extensively rewritten and therefore retitled to reflect this. The book clarifies that a project may be a scale of investment leading to a tangible asset or simply a change to business processes. The book goes beyond the currently accepted views on the project risk management methodology outlined below and argues that use of the *uncertainty* management perspective can be a much better approach than *risk* management as it offers the opportunity to transform management processes and scope to improve organisational performance.

The classical distinction between risk and uncertainty is that an element involves risk if the probability of possible alternatives is known, while it is characterised by uncertainty if the probability distribution of possible outcomes is not known. In the context of project investments, risk may also be defined as the uncertainty surrounding expected returns measured by the standard deviation of the distribution of expected returns. In the context of construction projects, the words risk and uncertainty tend to be used interchangeably as the distinction between risk and uncertainty is rarely clear cut. A systematic methodology for the management of risk involves identification of risk sources, analysis of their effects on project parameters such as cost or net present value and development of appropriate management response strategies to mitigate risk effects.

The book argues that whole life-cycle approaches to all aspects of change management are essential. The textbook also advocates integration of qualitative and quantitative aspects of the uncertainty management process in a holistic way. The text further argues that it is essential that uncertainty management and the rest of the project management function are integrated to enable better decision-making and optimal project and corporate performance.

The book is presented in 16 chapters and four parts. Part one consists of four chapters. Part two consists of seven chapters. Parts three and four consist of two and three chapters respectively. Part one explains the fundamental principles and philosophy of the performance uncertainty management processes (PUMPs) which assist in clarifying uncertainty, opportunity and risk in projects and organisations. The generic PUMP consists of seven phases

- (a) defining the project to provide an effective common understanding
- (b) focusing the process to provide the basis for better clarity
- (c) identifying all the relevant sources of uncertainty and the response options and conditions
- (d) structuring all the uncertainty to make explicit all key interdependencies and links between components
- (e) clarifying ownership by allocating financial and managerial responsibility for all sources of uncertainty
- (f) quantifying where possible uncertainty using an iterative process to refine earlier estimates of uncertainty if possible
- (g) evaluating all the relevant implications.

Part two of the book provides a detailed evaluation of each of the above basic seven phases devoting one chapter to each phase. Part three of the book relaxes some of the assumptions and addresses the use of a PUMP in all other stages of the life-cycle. The first chapter in the third section (Chapter 12) addresses use of a PUMP in all strategy development processes and Chapter 13 analyses the implications of using PUMPs in the strategy implementation stages of the project life-cycle.

The last part of the book consists of three chapters which cover the corporate implications of taking forward an organisational capability for project uncertainty management. Chapter 14 specifically covers what is involved in establishing and taking this approach forward. Chapter 15 addresses the importance of aligning the motivations of the contractor and the client. Specifically, the limitations of incentive contracts based on project costs are covered and multidimensional incentive contracts are advocated to take account of various attributes of project performance.

Overall, I enjoyed reading the book. It is a good textbook, succinct and informative. It is rigorous and covers difficult concepts reasonably well. The main thrust of the book is essentially a new approach to uncertainty management to improve organisational performance. Postgraduate students, practising engineers, project managers, academics and researchers will equally find the book useful. Project management practitioners and specialists seeking an advanced treatment of the subject beyond the usual fundamentals of project risk management will find the textbook particularly helpful. At the time of writing this review, the price of just under £40 for a hardback copy to my mind represents value for money. I thoroughly commend the textbook.

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