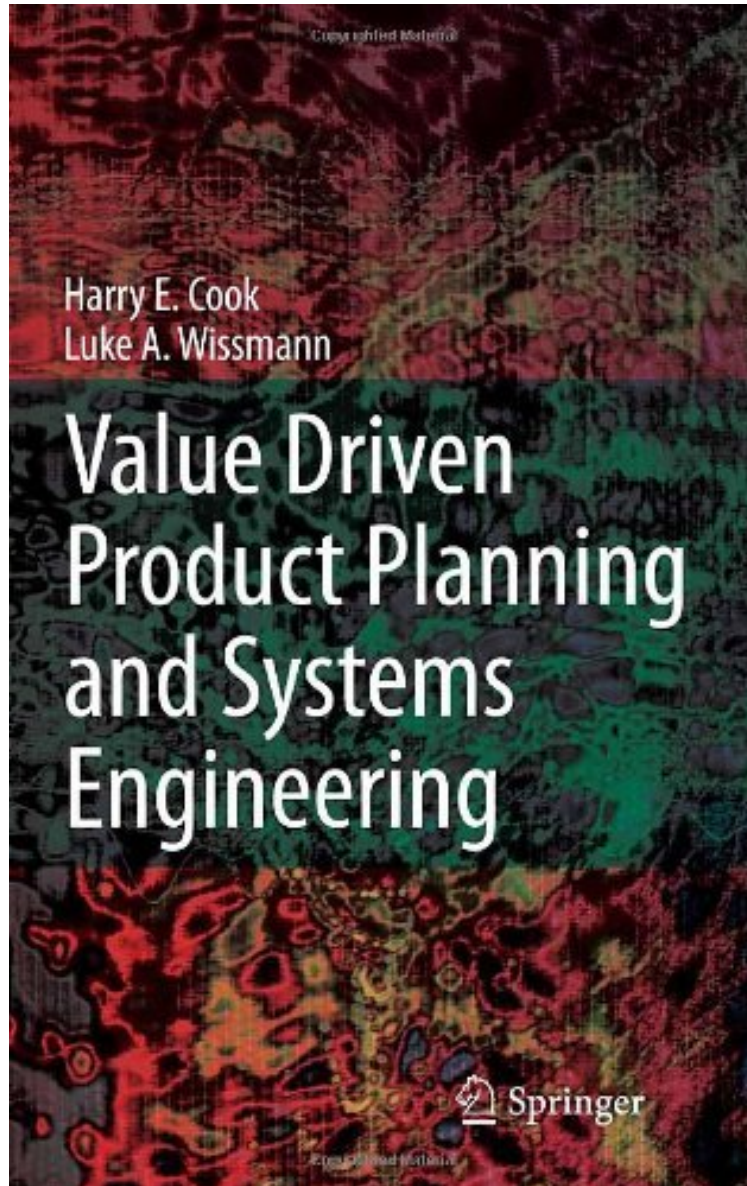


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# Value Driven Product Planning and Systems Engineering

*Harry E. Cook, Luke A. Wissmann*

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**Harry E. Cook, Luke A. Wissmann : Value Driven Product Planning and Systems Engineering** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Value Driven Product Planning and Systems Engineering:

5 of 5 people found the following review helpful. Fieldbook for Value-Driven Product Planning By Joseph A. Donndelinger This is the third entry in a series of books from Harry Cook. "Value Driven Product Planning and Systems Engineering" is the title of this book, although that could just as well be the title of the entire series. This

book contains more than a decade's worth of lessons learned through further research and practical application of the principles in Cook's first book, "Product Management." Together, these books thoroughly cover both the theoretical and applied sides of market modeling, marketing research, and experimental design as well as numerous other subjects relevant to new product development. Through all his books, Cook has remained true to the mantra of "rigor with simplicity." Co-author Luke Wissmann brings a strong flavor of systems thinking and intellectual curiosity to this book. The authors' goal is to illustrate how an entire product development organization can develop and integrate a network of tools that are universally understood and executable in real-time to support agile decision-making. Their goal is not to prescribe methods for maximizing model fidelity within individual product development disciplines; however, this book contains richer discussions of the relationships between Cook's methods and other popular methods (e.g. Demand-Price Analysis and Multinomial Logit, Direct Value Method and Choice-Based Conjoint) than have appeared in previous volumes. For product development professionals seeking a systematic, intuitive, and data-driven structure for making up-front design concept and design configuration decisions, I highly recommend the two complementary texts "Product Management" and "Value Driven Product Planning and Systems Engineering."

4 of 4 people found the following review helpful. The "value" of customer value in design. By Alberto. This book is based on the wisdom gained during his outstanding career by Harry Cook as a manager and a scientist in the automotive industry and in Academia. Harry Cook believes in simple rules to make decisions related to product design; first and foremost customer value. While we have many books discussing innovation and industrial planning in an informal and qualitative way, Harry Cook and his co-author explain how to use with rigor simple quantitative metrics to guide decisions. The authors not only present their views and approach, but they also review other methods used in decision support systems. The book includes extensive analysis of case studies taken mostly from the automotive industry. The case studies are appropriately abstracted to allow exercising the methods presented in the book. The book should appeal to practicing engineers especially in the traditional sectors (e.g., transportation and industrial engineering) to understand how to measure and use customer value in making their engineering decisions. In my personal experience, I noted too often that important decisions on product design are taken on the spur of the moment based on intuition and neglecting what the ultimate judge of the success of a company, the customer, thinks.

1 of 1 people found the following review helpful. An important contribution. By Sam. This book fills a critically important void: value engineering. The goal of all products and services is to create value for customers. But how do we measure that value and how do we trade off the different dimensions of value to create the best products? For almost all designers this process is effectively unknown. Even some of the most basic definitions, such as "customer value," are not widely understood. Indeed, many believe that customer value cannot be quantified. This is the "I will know it when I see it" school of design. This view is wrong. This book teaches the reader the fundamentals of customer value and demonstrates how to quantify it to realize more systematic and successful product designs. A feature of this book is that it is based on a series of practical examples covering a wide range of applications. If you are serious about creating compelling value for your customers you should read and understand this important book. You will be rewarded by the large number of new, valuable, and surprising ideas presented.

Engineers and scientists often need to sell an innovative idea for a new product to top management. Those who occupy product planning positions also need to be constantly scanning ideas for improving value. The engineer as product planner must learn to think like its major competitor using customer value as a guide. This book provides essential support for engineers and scientists who are required to make realistic business cases for new product concepts.

From the Back Cover. Engineers and scientists often need to sell an innovative idea for a new product or a new product improvement to top management. Sometimes their tendency is to focus on the "WOW!" of the new technology at the expense of making a convincing business case. When the new technology represents a large cost reduction, there will be much less of a problem in convincing management to approve the project if the investment level is acceptable. The major rub comes when the new feature or technology is an improvement in customer value that also generates an increase in cost. This makes the sell difficult in spite of the fact that many of the inventive products available today are widely used because they provide very high value in relation to their added cost. Engineers and scientists also occupy product planning positions where they need to be constantly scanning ideas for improving value that comes both from inside and outside the company to see if they make sense to incorporate in a future product. At the same time they need to anticipate what their major competitors are likely to do to improve their next generation of product. These problems are exacerbated in today's global economy because the number of competitors has increased markedly in many product segments and there are many technological alternatives available for consideration. The problem of anticipating the moves of your major competitor is particularly challenging because most firms keep plans very secure. The engineer as product planner must learn to think like its major competitor using customer value as a guide. Value Driven Product Planning and Systems Engineering provides essential support for engineers and scientists who are required to make realistic business cases for new innovative product concepts.

About the Author. H.E. Cook, formerly Head of the Department of General Engineering at the University of Illinois at Urbana-Champaign, is a member of the

National Academy of Engineering, a Fellow of the Society of Automotive Engineers, and a Fellow of ASM. He set the vision for the newly inaugurated M.S. and Ph.D. programs in Systems and Entrepreneurial Engineering within the General Engineering Department that led to the merger with Industrial Engineering and the formation of a new department named Industrial and Enterprise Systems Engineering. While a member of the Department of Mechanical and Industrial Engineering, Dr Cook held the Grayce Wicall Gauthier and later the Joseph Gauthier Professorships. Originally a theorist in materials science, his current research and teaching interests are in the broad aspects of product/technology management including product planning, value analysis, marketing research, design and analysis of strategic experiments (Six Sigma), and advanced quality systems. Dr Cook has also held a variety of research, engineering and management positions during 17 years in the automotive industry at Ford and Chrysler. He is a consultant to Birchwood Consultants International Ltd., and a member of the Science and Technology Advisory Board of General Motors. L.A. Wissmann has worked for the Ford Motor Company as a Vehicle Engineer, and has spent time at General Motors as a Visiting Scientist in the Department of Customer Driven Quality, where he helped to develop new methods for building business cases for new technologies in the RD pipeline. During this period he was also pursuing a Ph.D. at the University of Illinois at Urbana-Champaign in the Department of Industrial and Enterprise Systems Engineering. He is currently employed by Hamilton Sundstrand.