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| Nota di contenuto | Intro Preface Acknowledgments Contents Chapter 1: Introduction Chapter 2: R& D Project Failure and Principal Investigators 2.1 R& D Project Failure 2.1.1 Defining Success and Failure 2.1.2 Measuring Business Failure Why Businesses Fail 2.2 Principal Investigators 2.2.1 Multifaceted Responsibilities 2.2.2 The Goal of Commercialization 2.3 Conclusion Part I: Contextual Setting Chapter 3: Publicly Funded Collaborative R& D: The Case of the US Department of Energy 3.1 Introduction 3.2 The Early History of DOE 3.3 DOE Is Formalized 3.4 Current Organization of the DOE and Support for PIs 3.5 Conclusion Chapter 4: Legislative History of the SBIR Program 4.1 Introduction 4.2 The SBIR Program 4.3 The Empirical Literature on the SBIR Program 4.4 SBIR and the Department of Energy 4.5 Conclusion Chapter 5: A Theoretical Model of R& D Project Success or Failure 5.1 Introduction 5.2 Revenue and Costs of a New Technology 5.3 Profit-Maximizing Choice of R& D Inputs Chapter 6: Department of Energy and SBIR Data 6.1 Background 6.2 Survey Data 6.3 Measures of Failure 6.4 Conclusion Chapter 7: Collaborative R& D |

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| Sommario/riassunto | Failure in R&D efforts are fairly common and with many factors that contribute to the outcome. This book focuses on the role of principal investigators (PIs) in R&D project failures and provides a theoretical model explaining how firm characteristics, including those of the PIs, impact the probability of failure. The theoretical model also serves as a structural form model to motivate the empirical analysis which assesses the probability of failure in small technology-based firms. The author uses data from the U.S. Department of Energy's (DOE) Small Business Innovation Research (SBIR) program to build a new and informative tool to assess R&D projects and demonstrate the strengths of the theoretical model. The association between PIs and R&D failure not only provides insights that can have a downstream impact to economic growth, but it can also provide policymakers with valuable information to aid decisions in allocating funds for R&D. |