Book review

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BOOK REVIEW


Bringing together the expertise of practitioners and researchers from different countries in order to disseminate experience and best practice within world-class and small-medium companies is the intention of RFID in operations and supply chain management, a new compendium of articles about radio-frequency identification applications in production and logistics. This volume, edited by Thorsten Blecker and George Q. Huang, presents current research issues on the implementation and application of RFID in practice. In addition, this volume dwells on logistic standards and emerging issues such as privacy and security considerations for RFID systems. This book addresses both academic researchers and ambitious practitioners who are working in the area of RFID.

The handbook collects contributions from authors around the world, mainly from Germany, China and the United States. The 26 different chapters are grouped into the following four parts.

The first part covers various articles about the implementation of RFID-enabled solutions in supply chains. Topics in this section range from the description of frameworks like the proposal of a four-phased framework for RFID implementation in enterprises or a framework for designing and evaluating RFID consumer applications to specific chapters for small and medium-sized enterprises (SMEs) like implementation challenges or tracking and tracing solutions for SMEs.

In the second part, nine chapters discuss a variety of applications in different industrial sectors. This particularly intriguing section describes how RFID technology gains wider adoption in various industries, and how possible applications range from material supply to waste management. For example, there are chapters about the logistics management of fruits in Greece, RFID applications for improving frozen food quality management, solutions for loss management in pharmaceutical distribution with anti-counterfeit technologies or an RFID concept to improve the dispatching and unloading processes of a waste management company. Moreover, future business applications relying on radio frequency identifications are explored. For example, one chapter is about dealing with new challenges in one-to-one marketing and inventory control with real-time decision support systems.

The chapters of part three describe the impacts of using RFID solutions. Answered questions are, for example: "What is the effect of supply chain contracts on supplier and retailer costs and benefits in RFID systems?" or "What is the consumer attitude and behaviour toward RFID usage?" Statements in this part are underlined by surveys and empirical insights.

Finally, four chapters dealing with standards and emerging issues of logistics and supply chain management concepts with RFID technology are presented in part four of the book. Additional information about existing international logistics standards is given in this chapter. The book is rounded off with discussion of legal and ethical issues concerning RFID: this topic becomes more and more relevant, since concerns about privacy and security are rising with further dissemination of RFID.

The book is well organised and structured and each chapter starts with an overview of the different technique and methodological approaches, often followed by case studies to demonstrate its use and merits. Therefore, the book could be of use both for didactic and practical purposes. It is geared towards researchers who are looking for innovative ideas as well as for practitioners who are trying to successfully implement RFID solutions in practice. While it shows some demonstrative examples of RFID solutions in a clear and plain manner, it does not shy away from discussions of algorithms and technical details either. Therefore, it will mainly address people who already have certain knowledge of RFID technology or practical experience. It does not have to be read consecutively, but readers can choose the most relevant chapters to achieve further understanding and knowledge for implementation.

To put it in a nutshell, this book forms a comprehensively variagated collection of articles that highlights current research issues and provides guidelines about applications and implementation of RFID technology in the field of production and supply chains. It gives an informative and interesting overview about current developments and advances on this contemporary topic.

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