

Contents

Volume 1

Foreword and Acknowledgments..... vii

**Introduction: Mass Customization Thinking:
Moving from Pilot Stage to an Established Business Strategy 1**

1 Strategic Aspects of Managing Mass Customization & Personalization..... 19

- 1.1 From Mass Production to Mass Customization: Hindrance Factors, Structural Inertia and Transition Hazard 21
- 1.2 How to Implement a Mass Customization Strategy: Guidelines for Manufacturing Companies 44
- 1.3 Media Market Inertia: A Potential Threat to Success of Mass Customization 65
- 1.4 Operationalizing Mass Customization – A Conceptual Model Based on Recent Studies in Furniture Manufacturing 79
- 1.5 Beyond Mass Customization: Exploring Features of a New Paradigm 97
- 1.6 Is the Best Product a Unique Product? Exploring Alternatives to Mass Customization with the Online Community of Threadless 118
- 1.7 Before Pine and Dell: Mass Customization in Urban Design, Architecture, Linguistics, and Food 139

2 Consumer Studies & Marketing Aspects 159

- 2.1 Typology of Potential Benefits of Mass Customization Offerings for Customers: An Exploratory Study of the Customer Perspective 161
- 2.2 The Co-Design Experience: Conceptual Models and Design Tools for Mass Customization 181
- 2.3 Why Consumers Are Willing to Pay for Mass Customized Products: Dissociating Product and Experiential Value 208
- 2.4 Sneakerheads and Custom Kicks: Insights into Symbolic Mass Customization 226
- 2.5 E-Customization: Research and Applications from the Cognitive Learning Theory 240
- 2.6 Modularity as a Base for Efficient Life Event Cycle Management 263

2.7	Bundling, Mass Customization, and Competition under Consumption Uncertainty	275
3	Building the Solution Space: Product & Process Design for Mass Customization.....	295
3.1	Towards a Knowledge Support System for Product Family Design	297
3.2	Product Family Modeling: Working With Multiple Abstraction Levels	319
3.3	Market-based Strategic Platform Design for a Product Family Using a Bayesian Game	338
3.4	Knowledge Based Configurable Product Platform Models	357
3.5	Change Prediction for Mass Customized Products: A Product Model View	376
4	Making Manufacturing & Supply Chain Management for MCP Work.....	401
4.1	An Agility Reference Model for the Manufacturing Enterprise: The Example of the Furniture Industry	403
4.2	Overcoming Configuration Process Complexity of Highly Customizable Components	427
4.3	Mass Customization of Responsive Automated Assembly Cells	451
4.4	A Prioritization Algorithm for Configuration Scheduling in a Mass Customization Environment	487
4.5	Procurement Mechanisms for Customized Products	513
5	Rapid Manufacturing for Mass Customization	535
5.1	Extreme Customization: Rapid Manufacturing Products that Enhance the Consumer	537
5.2	e-Manufacturing – Making Extreme Mass Customization Real by Laser-Sintering	555
5.3	RepRap: The Replicating Rapid Prototyper: Maximizing Customizability by Breeding the Means of Production	568
5.4	Customization of Consumer Goods: First Steps to Fully Customizable Fashionable Ladies' Shoes	581

Volume 2

Foreword and Acknowledgments.....	vii
Introduction and Overview.....	591
1 Customization & Personalization of Services	601
1.1 How to Master the Challenges of Service Mass Customization – A Persona-Based Approach	603
1.2 Mass Customization in Wireless Communication Services: Individual Services and Tariffs	622
1.3 Unraveling the Service Innovation Dilemma: The Promise of Network Embeddedness	646
1.4 Emotional Design Techniques in the Personalization of Services	665
1.5 One Size Fits All, Made-to-Measure, and Bespoke Tailoring: Challenges in Building an Attractive Service Portfolio	683
1.6 Mass Customization for Individualized Life-long Learning: Needs, Design, and Implementation	698
1.7 A Mass of Customizers: The WordPress Software Ecosystem	717
2 Beyond Bespoke Tailoring: Mass Customization in the Apparel Industry.....	729
2.1 Virtual Fit of Apparel on the Internet: Current Technology and Future Needs	731
2.2 RFID Diffusion in Apparel Retail: How Consumer Interest and Knowledge Lead to Acceptance	749
2.3 Discard "one size fits all" Labels! Proposal for New Size and Body Shape Labels to Achieve Mass Customization in the Apparel Industry	771
2.4 Developing Considerate Design: Meeting Individual Fashion and Clothing Needs Within a Framework of Sustainability	813
2.5 Customized Garment Creation with Computer-Aided Design Technology	833
2.6 A Case Study in Personalized Digitally Printed Clothing	852
3 Mass Customization in Architecture and Construction	867
3.1 Customizing Building Envelopes: Retrospects and Prospects of Customization in the Building Industry	869

3.2	Mass Custom Design for Sustainable Housing Development	892
3.3	Customization in Building Design and Construction: A Contribution to Sustainability	911
4	Applications of MCP in Various Contexts	941
4.1	The State of the Art of Mass Customization Practices in Finnish Technology Industries: Results from a Multiple-Case Study	943
4.2	Opportunities and Challenges of Furniture Manufacturers Implementing Mass Customization	965
4.3	Mass Customization in the Ophthalmic Lens Industry: Progressive Addition Lenses for Your Visual Map	977
4.4	Towards a Mass-Customized, Full Surround Simulation of Concert-Theater Effects When Listening to Music Presented on a Pair of Earphones	996
4.5	Simulation Models to Demonstrate Mass Customization Strategies	1005
5	From Mass Customization to Open Innovation	1021
5.1	User Innovation and European Manufacturing Industries: Scenarios, Roadmaps and Policy Recommendations	1023
5.2	Bridging the Innovation Gap: From Leading-Edge Users to Mass Market	1044
5.3	Ordinary Users and Creativity: Fostering Radical or Incremental Innovation?	1059
5.4	Modeling and Evaluating Open Innovation as Communicative Influence	1081