
Management for Professionals

More information about this series at <http://www.springer.com/series/10101>

Jan vom Brocke • Jan Mendling
Editors

Business Process Management Cases

Digital Innovation and Business
Transformation in Practice

 Springer

Editors

Jan vom Brocke
Institute for Information Systems
University of Liechtenstein
Vaduz, Liechtenstein

Jan Mendling
Institute for Information Business
Vienna University of Economics & Business
Vienna, Austria

ISSN 2192-8096

Management for Professionals

ISBN 978-3-319-58306-8

DOI 10.1007/978-3-319-58307-5

ISSN 2192-810X (electronic)

ISBN 978-3-319-58307-5 (eBook)

Library of Congress Control Number: 2017947893

© Springer International Publishing AG 2018

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Foreword

It is a pleasure to write the introduction to this wonderful book on Business Process Management (BPM) cases. On the one hand, the BPM cases illustrate the maturity of the field. On the other hand, the book also shows that there are still many open challenges. In fact, there is a continuous need to show that BPM indeed adds value and helps organizations to improve. The editors, Jan vom Brocke and Jan Mendling, understand this perfectly and did a great job in bringing together a range of authors and experiences.

In this foreword, I would like to briefly reflect on developments in the field. In 2003 we organized the first International Conference on BPM in Eindhoven. This was the time were BPM was an emerging topic following the workflow management wave of the 1990s. The conference was an immediate success and this year we are celebrating the 15th edition of the BPM conference in Barcelona. BPM is no longer a “hot topic”, but has become the “new normal”. Process orientation, something which was previously seen as something exotic, has become commonplace for most organizations. Moreover, BPM has become more much evidence-based, exploiting the abundance of event data available. However, the actual practice of BPM is scarcely documented in literature. Scientific papers tend to focus on a particular aspect or technique. Articles written by practitioners or so-called “opinion leaders” are often shallow and just a concatenation of buzzwords. Therefore, this book is a very welcome addition!

Clarence “Skip” Ellis (1943–2014) gave a keynote at the first BPM conference in 2003. He was one of the pioneers in Workflow Management, Computer-Supported Cooperative Work, and BPM. Skip Ellis developed office automation prototypes such as Officetalk-Zero and Officetalk-D at Xerox PARC in the late 1970s. These systems used Information Control Nets, a variant of Petri nets, to model processes. In a way the basics are the same, e.g., there is still a focus on process diagrams and process automation. However, looking at the BPM cases in this book demonstrates that also many things have changed dramatically. Real-life projects show that modeling and automation are not the ultimate goal. BPM needs to add value and help organizations to continuously improve and disruptively innovate their processes.

The BPM cases in this book relate to different core elements of BPM, namely Strategic and Governance (Part I), Methods (Part II), Information Technology (Part

III), and People and Culture (Part IV). The contributions cover different parts of the BPM lifecycle. These actual cases also nicely relate to my own 20 BPM Use Cases elaborated in the survey paper “Business Process Management: A Comprehensive Survey” (ISRN Software Engineering, 2013, <http://dx.doi.org/10.1155/2013/507984>). Whereas the 20 BPM Use Cases identify the core BPM building blocks, the cases in this book aim to describe end-to-end BPM projects. The first chapter provides a nice taxonomy to position the 31 real-world BPM cases. Different angles are used to show the richness of the BPM discipline. The cases are presented in a unified format, making them accessible and easy to comprehend.

How about the future of BPM? I strongly believe that the spectacular growth of event data is rapidly changing our BPM discipline. It makes no sense to focus on process modeling (including model-based analysis and model-based process automation) without considering the torrents of factual data in and between today’s organizations. Recent developments in process mining make it possible to use process models as the “lens” to look at (low) level event data. Such a “process lens” helps to understand and solve compliance- and performance-related problems. The focus on data analysis is good, but should not frustrate process-orientation. In the end, good processes are more important than information systems and conventional analytics. The old phrase “It’s the process stupid” is still valid.

I hope you enjoy reading the book and learn from the many practical experiences condensed in the 31 real-world BPM cases reported.

Eindhoven, The Netherlands
March 2017

Wil van der Aalst

Preface

Business Process Management (BPM) is an important and timely topic. For many companies, BPM is the key for mastering digital transformation and for innovating their business models. The fast pace of change has also taken a grip on concepts and techniques of BPM, with various new ideas emerging from research and practice. Several excellent sources exist that summarize established concepts of BPM. So far, however, a collection of real-world cases making available the experience of organizations applying BPM for various objectives was missing. It is the aim of this book to close this gap and to increase knowledge exchange based on real-world BPM projects for fostering both BPM education and practice.

For this book, we have gathered 31 cases on how companies use business process management to achieve outstanding operational results. Each of these cases is organized according to a uniform structure including the following parts:

- Introduction—What is the story of the case? The authors give a brief narrative of the entire story to grasp your interest in the case. This part includes a summary of the key figures of the company.
- Situation faced—What was the initial problem situation? What situation led to the action taken? The authors specify the context of the case as to needs, constraints, incidents, objectives, and beyond.
- Action taken—What has been done? What measures have been taken, as e.g. regarding the process redesign or process innovation? Which methods and approaches have been used? The authors provide a factual passage of the course of events.
- Results achieved—What effects could be observed resulting from the action taken? This could be changes in performance measures as well as qualitative statements from employees, customers, or other business partners. Here, the authors also discuss how far expected results materialize and how far expectations were met or not met.
- Lessons learned—Reflecting the overall case, what can others learn from it? The authors derive around five lessons learned, which are grounded in the case and which are interesting for others to take as an example.

The cases of this book are grouped into four major blocks, which are inspired by the six core elements of BPM by de Bruin and Rosemann. Part I contains cases that

relate to strategy and governance. The cases stem from SAP in Germany, S-Y Systems Technologies in Germany, Autogrill in Italy, the Dompe eHospital in Sri Lanka, a leading telecommunications provider in the Middle East, and the Slovene public service company Snaga. Part II presents cases on BPM methods. These cases relate to “Die Mobiliar” from Switzerland, Queensland University of Technology in Australia, the City of Ghent in Belgium, a Brazilian insurance company, the telecommunications provider 3 in Germany, Bolzano Hospital in Italy, an Australian insurance company, Software AG in Germany, and St. Andrew’s War Memorial Hospital in Australia. Part III discusses cases on information technology and BPM. The cases refer to CrowdStrom in Germany, MELOS in Germany, Deutsche Bank in Germany, BRFKredit in Denmark, a German manufacturing company, Zalando in Germany, Adler Moden in Germany, a Slovak logistics provider, and HEYCO-WERK in Germany. Part IV discusses BPM-related issues of people and culture. It builds on cases from Lufthansa Technik in Germany, 1&1 Internet in Germany, TCE-PE from Brazil, Jade University of Applied Science in Germany, and a Norwegian company in the Oil and Gas sector.

The material presented in this book is complemented by online material for teaching, training, and advisory. The website

<http://www.bpm-cases.com>

makes available slides and additional content that can be helpful for using the cases both in teaching BPM and in preparing for BPM projects in practice.

We thank the following people and institutions for their continuous support toward the compilation of this book.

- First, we thank our research teams both in Liechtenstein and in Vienna. There have always been strong ties between Liechtenstein and Vienna not only in BPM but in history, and we emphasize this connection with our book cover that refers to the pattern of the parquet floor of one room in the Palais Liechtenstein in Vienna.
- Second, we thank the organizers of the BPM Conference in Innsbruck 2015 who gave us the chance to bring together many of the case authors of this book by inviting us to organize the industry program of the conference. In Innsbruck, half way between Liechtenstein and Vienna, the idea of this book emerged.
- Third, we thank our colleagues and friends who served on the editorial board of this book and who have dedicated much time and effort in multiple rounds of reviews to further develop the cases presented in this book.
- Fourth, we thank our BPM research colleagues for their continuous inspiration and support, specifically at QUT Brisbane, TU Eindhoven, VU Amsterdam, Uni Tartu, HPI Potsdam, to name but a few.
- Finally, special thanks go to our colleagues from the University of Münster who initiated and coordinate the ERCIS network [European Research Center for Information Systems (ERCIS)]. Stemming from this network, we also have the opportunity to collaborate with many of our BPM colleagues and friends, in the EU Horizon 2020 project RISE_BPM, provided by the European Commission under the Marie Skłodowska-Curie grant agreement No. 645751 and the

Liechtenstein Government. We are grateful for the financial support through this project, which was essential in making the idea of the BPM Cases Book come to life.

We hope you will enjoy reading the book and working with the cases, and we look forward to hearing from you related to any possible feedback!

Vaduz, Liechtenstein
Vienna, Austria

Jan vom Brocke
Jan Mendling

Editorial Board

- Saimir Bala, WU Vienna
- Jörg Becker, University of Münster
- Cristina Cabanillas, WU Vienna
- Claudio Di Ciccio, WU Vienna
- Marlon Dumas, University of Tartu
- Maria Fay, University of Liechtenstein
- Roope Jaakonmäki, University of Liechtenstein
- Henrik Leopold, WU Vienna
- Mikael Lind, Viktoria Swedish ICT and Chalmers University of Technology
- Sonia Lippe-Dada, University of Liechtenstein
- Peter Loos, Saarland University
- Monika Malinova, WU Vienna
- Charles Møller, Aalborg University
- Michael zur Muehlen, Stevens Institute of Technology
- Hajo Reijers, VU University Amsterdam and Eindhoven University of Technology
- Maximilian Röglinger, University of Bayreuth
- Andreas Rogge-Solti, WU Vienna
- Michael Rosemann, Queensland University of Technology
- Christoph Rosenkranz, University of Cologne
- Alexander Schmid, University of Liechtenstein
- Nadine Székely, University of Liechtenstein
- Matthias Tietz, University of Liechtenstein
- Peter Trkman, University of Ljubljana
- Sanja Tumbas, University of Liechtenstein
- Amy van Looy, Ghent University
- Stijn Viaene, Vlerick Business School
- Isabell Wohlgenannt, University of Liechtenstein
- Sarah Zelt, University of Liechtenstein

Contents

| | |
|--|------------|
| Frameworks for Business Process Management: A Taxonomy for Business Process Management Cases | 1 |
| Jan vom Brocke and Jan Mendling | |
| Part I Strategy and Governance | |
| How to Move from Paper to Impact in Business Process Management: The Journey of SAP | 21 |
| Corinne Reisert, Sarah Zelt, and Joerg Wacker | |
| Developing and Implementing a Process-Performance Management System: Experiences from S-Y Systems Technologies Europe GmbH—A Global Automotive Supplier | 37 |
| Josef Blasini, Susanne Leist, and Werner Merkl | |
| Establishment of a Central Process Governance Organization Combined with Operational Process Improvements | 57 |
| Christian Czarnecki | |
| BPM Adoption and Business Transformation at Snaga, a Public Company: Critical Success Factors for Five Stages of BPM | 77 |
| Andrej Kovačič, Gregor Hauc, Brina Buh, and Mojca Indihar Štemberger | |
| Enabling Flexibility of Business Processes Using Compliance Rules: The Case of Mobiliar | 91 |
| Thanh Tran Thi Kim, Erhard Weiss, Christoph Ruhsam, Christoph Czepa, Huy Tran, and Uwe Zdun | |
| Comprehensive Business Process Management at Siemens: Implementing Business Process Excellence | 111 |
| Bartosz Woliński and Saimir Bala | |

| | |
|---|-----|
| People-Centric, ICT-Enabled Process Innovations via Community, Public and Private Sector Partnership, and e-Leadership: The Case of the Dompe eHospital in Sri Lanka | 125 |
| Wasana Bandara, Rehan Syed, Bandula Ranathunga, and K.B. Sampath Kulathilaka | |
| Fast Fish Eat Slow Fish: Business Transformation at Autogrill | 149 |
| Stijn Viaene and Joachim Van den Bergh | |
| Part II Methods | |
| The NESTT: Rapid Process Redesign at Queensland University of Technology | 169 |
| Michael Rosemann | |
| Kiss the Documents! How the City of Ghent Digitizes Its Service Processes | 187 |
| Amy Van Looy and Sabine Rotthier | |
| Application of the Design Thinking Approach to Process Redesign at an Insurance Company in Brazil | 205 |
| José Ricardo Cereja, Flavia Maria Santoro, Elena Gorbacheva, and Martin Matzner | |
| Collaborative BPM for Business Transformations in Telecommunications: The Case of “3” | 235 |
| Thomas Karle and Kurt Teichenthaler | |
| Process Management in Construction: Expansion of the Bolzano Hospital | 257 |
| Elisa Marengo, Patrick Dallasega, Marco Montali, Werner Nutt, and Michael Reifer | |
| Exposing Impediments to Insurance Claims Processing | 275 |
| Robert Andrews, Moe Wynn, Arthur H.M ter Hofstede, Jingxin Xu, Kylie Horton, Paul Taylor, and Sue Plunkett-Cole | |
| Mining the Usability of Process-Oriented Business Software: The Case of the ARIS Designer of Software AG | 291 |
| Tom Thaler, Sabine Norek, Vittorio De Angelis, Dirk Maurer, Peter Fettke, and Peter Loos | |
| Improving Patient Flows at St. Andrew’s War Memorial Hospital’s Emergency Department Through Process Mining | 311 |
| Robert Andrews, Suriadi Suriadi, Moe Wynn, Arthur H.M. ter Hofstede, and Sean Rothwell | |

Part III Information Technology

CrowdStrom: Analysis, Design, and Implementation of Processes for a Peer-to-Peer Service for Electric Vehicle Charging 337
 Martin Matzner, Florian Plenter, Jan H. Betzing, Friedrich Chasin, Moritz von Hoffen, Matthias Löchte, Sarah Pütz, and Jörg Becker

Enabling Flexible Laboratory Processes: Designing the Laboratory Information System of the Future 361
 Christoph Duelli, Robert Keller, Jonas Manderscheid, Andreas Manntz, Maximilian Röglinger, and Marco Schmidt

Managing Environmental Protection Processes via BPM at Deutsche Bahn 381
 Ingo Rau, Iris Rabener, Jürgen Neumann, and Svetlana Bloching

Hybrid Process Technologies in the Financial Sector: The Case of BRFKredit 397
 Søren Debois, Thomas Hildebrandt, Morten Marquard, and Tijs Slaats

Business Process Management in the Manufacturing Industry: ERP Replacement and ISO 9001 Recertification Supported by the icebricks Method 413
 Jörg Becker, Nico Clever, Justus Holler, and Maria Neumann

Why Are Process Variants Important in Process Monitoring? The Case of Zalando SE 431
 Matthias Schrepfer, Matthias Kunze, Gunnar Obst, and Juliane Siegeris

Adoption of RFID Technology: The Case of Adler—A European Fashion Retail Company 449
 Roland Leitz, Andreas Solti, Alexander Weinhard, and Jan Mendling

Automate Does Not Always Mean Optimize: Case Study at a Logistics Company 463
 Jan Suchy, Milan Suchy, Michal Rosik, and Agnes Valkova

Integrate Your Partners into Your Business Processes Using Interactive Forms: The Case of Automotive Industry Company HEYCO 485
 Bernhard Schindlbeck and Peter Kleinschmidt

Part IV People and Culture

Leading 20,000+ Employees with a Process-Oriented Management System: Insights into Process Management at Lufthansa Technik Group 505
 Mirko Kloppenburg, Janina Kettenbohrer, Daniel Beimborn, and Michael Bögle

“Simply Modeling”: BPM for Everybody-Recommendations from the Viral Adoption of BPM at 1&1 521
Florian Imgrund, Christian Janiesch, and Christoph Rosenkranz

Supporting Process Implementation with the Help of Tangible Process Models 541
Thomas Russack and Susanne Menges

Business Process Modeling of a Quality System in a Petroleum Industry Company 557
John Krogstie, Merethe Heggset, and Harald Wesenberg

Business Process Management in German Institutions of Higher Education: The Case of Jade University of Applied Science 577
Jan Bührig, Thorsten Schoormann, and Ralf Knackstedt

Exploring the Influence of Organizational Culture on BPM Success: The Experience of the Pernambuco Court of Accounts 593
Carina Alves, Iveruska Jatobá, George Valença, and Glória Fraga