

# Editorial

## Business Intelligence for New-Generation Managers: Current Avenues of Development

Taking the 2008/2009 economic crisis and the ongoing financial turbulences as a reference point, companies have to operate in an increasingly dynamic environment [2]. This has not just led to a significant development from pure financial accounting to a plurality of corporate management ideas [7], but in managers' information system (IS) design as well [4].

Business intelligence (BI) plays an important role in such an IS design as BI is designed to be managers' central, hands-on, and day-to-day valuable information source [3]. BI should provide the right information with the right quality and at the right time from different internal and external data sources [1].

Based on Wixom and Watson [9], we define *BI for managers* as a broad category of applications, technologies, and processes for gathering, storing, accessing, and analyzing data to help such managers to make better decisions. Following a "typical" decision-making process [8], this Springer contributed volume on BI for new-generation managers outlines avenues of development of their information need analysis (A), information collection (B), and information synthesis and presentation (C) [5].

(A) Starting with managers' *information need analysis*, they have expanded their role in operations—parallel to their strategic leadership. At the same time, they have to make decisions faster than in the past [6]. The first chapter "*On the Advent of Operational Perspectives in Business Intelligence*" by Tom Hänel analyzes BI in terms of supporting operational and strategic decision. One of his findings is that operational BI design requires higher data accuracy and a much greater amount of details. The holistic establishment of BI on all levels of operative decisions enables an exact measurement of efficiency and therefore connects the operational level directly to strategic ones.

Complementing these findings with a perspective on strategic decision making, Claudia Koschtial and Carsten Felden reflect with their chapter “*On the Way from a Knowledge Discovery in Databases to a Predictive Analytics*” such decisions and their BI support. Their approach is about knowledge discovery in databases to improve forecast quality. Environmental Scanning Systems fit into this direction of prediction as well. Using the KDD markup language, they enhance analyzed data with additional future-oriented data. Hence forecasting stops to predict the past but improves its precision.

Performance measurement systems are another approach of consolidating data in a compact yet comprehensive way according to managers’ information needs. Maurice K  gler and Christoph Nowakowski, in their chapter “*Design and Implementation of a Performance Measurement System for the German Trade Sector*”, propose a performance measurement system adjusted to managers’ trade sector-specific information needs. The authors develop a straightforward approach for calculating and visualizing an organization’s key performance indicators and reports on its implementation in a BI environment. The content on this chapter is part of a research project which was awarded the EHI Research Award from EHI Retail Institute.

The chapter “*Applicability of Environmental Scanning Systems: A Systematic List Approach to Requirements Criteria*” by Stefan Bischoff, Timm Weitzel, J  rg H. Mayer, and Reiner Quick complements this avenue of BI development for strategic decision making. The authors develop a systematic list approach to requirements criteria that specify the applicability of such IS. The criteria are derived from the principle of economic efficiency and can be applied to both evaluate existing environmental scanning systems and develop a new, more applicable generation.

**(B)** An organization has always to deal with the challenge how much information is needed for decision making and how this information has to be customized to company-specific requirements per se and especially managers’ way to make decisions. Thus, *collecting the “right” data* for managers’ decision making strongly determines the cost/benefit ratio of IS. Janusch Patas addresses this research topic by developing a method to systematically adjust maturity models (MMs) from the knowledge base to firm-specific business needs. In his chapter “*Developing individual IT-Enabled Capabilities for Management Control Systems*,” he presents a list of IT and non-IT assets that are necessary for companies to develop individual IT-enabled planning and reporting capabilities. Practice will benefit from an individual view on their IT-enabled capabilities and it forces managers to jointly consider their IT and non-IT assets when they are designing IT-enabled capabilities for their company.

The chapter “*Towards an Evaluation Framework to Structure Business Intelligence Project Patterns as Enhancement of Business Intelligence Maturity Models*” by Carsten Felden, Claudia Koschtial, and Peter Chamoni examines BI project descriptions which were part of the German TDWI “Best Paper Award” to examine

pattern for “typical” BI project definitions. In doing so, they differentiate between technology, organization, and business environment. The framework derived from 45 analyzed projects helps to find a company’s benchmark in relation to others in comparison to an elaborate process analysis which would be needed to find a reference point in a maturity model.

Big data is another emerging research topic in information collection. The term remains fuzzy and jeopardizes to become an umbrella term. The chapter “*Descriptive Big Data Model Using Grounded Theory*” by Marco Pospiech and Carsten Felden executes expert interviews to identify a common understanding. The outcome is a model which enables to classify and clarify big data contents and herewith separating buzz wording from progress.

(C) A misalignment in *information synthesis and presentation* often exposes difficulties that IT departments face to meet expectations of their business counterparts. The chapter “*Business Intelligence 2.0*” by Sebastian Behrendt and Alexander Richter discusses new ways of analyzing data. Bearing in mind changing communication and joint work, they focus on the growing importance of Enterprise Social Networks. The authors end with a proposal for a method mix for practice.

Last but not least, creating a new management support system, Jörg H. Mayer, Jens Hartwig, André Röder, and Reiner Quick derive in their chapter “*Self-Service Management Support Systems: Findings from a New-Generation Manager Perspective*” a set of business-driven design guidelines from the findings of a multi-case study within German DAX companies. The utility of these guidelines is demonstrated with a “mobile-first” prototype on a modern BI platform.

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