

## Chapter 8.16

# The Importance of Process Thinking in Business Intelligence

**Olivera Marjanovic**  
*University of Sydney, Australia*

### **ABSTRACT**

The growing field of Operational Business Intelligence (BI) has resulted in increasing interest in BI-supported Business Processes (BPs), including their management and ongoing improvement. This has led BI practitioners to consider another field—Business Process Management (BPM)—that is closely related to business performance management. However, current approaches to the BPM and operational BI integration have been limited and reduced to the problem of technical integration of BPM and BI systems. This paper argues that by adopting process-thinking in BI, further opportunities for business value creation could be discovered through systematic analysis of the non-technical aspects of BI and BPM integration, including strategy alignment, human-centered

knowledge management, and ongoing improvement of BI supported processes. The authors propose a theoretical framework founded in the related research in BPM, BI, and Knowledge Management (KM) fields, describing the ways it has been used to guide ongoing empirical research in diverse case organizations across different industry sectors.

### **INTRODUCTION**

To gain or maintain their competitive edge, more than ever before, organisations depend on high-quality information to support decision making processes, at all organizational levels. Factors such as, an ever increasing number of very diverse internal and external data sources, the sheer volume of data generated and used in everyday business, complexity of business processes, as well as vari-

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ous compliance, privacy and other data-related issues, have made cross-organisational data integration and analysis much more complex than ever before. These challenges have, in turn, created a renewed interest in the field of Business Intelligence (BI), including not only the BI tools, but also the new frameworks and methodologies, that could be used to inform the professional practice. All these trends have fast tracked BI to the top of the CIO's priority lists worldwide, for the fourth year in a row, as reported by the Gartner Executive Programs worldwide survey of more than 1500 chief information officers (Gartner, 2009a).

While in the past, the term BI had been used to describe a very broad range of applications, including even those providing computer-generated "intelligence", the latest thinking in this field emphasizes computer support combined with *human* intelligence, in the context of business decision making. BI is now seen as "an umbrella term that is commonly used to describe the technologies, applications and processes for gathering, storing, accessing and analyzing data to help users make better decisions" (Wixom & Watson, 2010, p. 14).

Based on the type of decisions made at different organizational levels, as well as decision makers and their information needs, BI has gradually evolved into two distinct types: *strategic* and *operational* BI (Imhoff, 2005). Strategic BI typically relies on an enterprise-wide data warehouse or (a) data mart(s) to provide support for decision makers at the strategic level. On the other hand, operational BI is designed to support more agile decision making at all organizational levels. An operational BI aim to make business intelligence more flexible, transparent and cost-effective, by tightly integrating it with organisation's constantly evolving business processes" (Indart, 2006). Operational BI is also changing the nature of work for its users. More precisely, it brings the powerful analytical tools from the back office and designated knowledge workers, to the front office and customer-facing employees, turning them into a new type of knowledge workers.

In very recent times, the wide-spread use of operational BI has resulted in an increased interest in the operational BPs within the BI community. In fact, as technical solutions reach a more mature stage, leaders in operational BI are now turning their attention to management and ongoing improvement of their BI-supported BPs.

At the same time, the BPM field is also focusing on process-related "intelligence", after a decades-long experience in management and improvement of operational BPs. In fact, the so-called BP-intelligence is currently considered to be as one of the key research and practical challenges in BPM (BPM, 2010).

Therefore, trough their own independent practices, both fields - operational BI and BPM - have reached the point of convergence – operational BPs. However, as this research confirms, their current considerations of the BI and BPM integration, in the context of operational processes, has been very limited, and simply reduced to the technical integration between BI and BPM systems. This is in spite of the recent industry reports that recommend the BPM-related initiatives, such as redesign of BI-supported processes that bring positive results without any additional IT investment. "Process is often an overlooked part of CRM and in many cases all that CRM technologies have done is taken out old, broken processes and made them run more efficiently" (Gartner, 2009b, p. 2).

As more and more BI and BPM practitioners and researchers start to investigate the operational BPs, it is becoming quite clear that their respective views and disciplinary understandings of the fundamental concepts, such as "business process", "business intelligence" or even "business process intelligence", are very different, and often mutually inconsistent, as illustrated later in the paper.

This research aims to open a further discussion between the BPM and BI communities, as well as to make an important contribution towards setting up a foundation for the interdisciplinary research and practice across these two, up to now, quite

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