Introduction: Real-Time Strategy and Business Intelligence

Marko Kohtamäki

Approach and Underlying Concepts

This book draws on the interplay between strategy and business intelligence, taking a holistic 360° perspective on the management of firms. It develops the concept of real-time strategic management to highlight the opportunities provided by digitization and to improve the management of firms for added organizational agility. One of the book's key goals is to illustrate how digitization is changing the strategic management landscape, aiming to generate new thinking to bridge strategy and management information systems to develop the concept of real-time strategic management. Together with globalization and opening markets, digitization is increasing the pace of environmental and organizational change, reducing obstacles to firm growth and competition. Business environments not only vary between industries, markets, and strategic groups, but also over time,

M. Kohtamäki (✉)
University of Vaasa, Vaasa, Finland
e-mail: mtko@uwasa.fi

regarding hostility of competition, dynamism of change, and complexity of technologies and other resources. Changes, which relate to environmental hostility, dynamism, and complexity, set a new and increasing demand for company strategies, capabilities, practices, processes, IT systems, resources, and competencies. As the search for competitive advantage is constant, innovative management practices are required from top to middle management at different organizational levels. Organizations need capacity to adapt to the changes in the environment, strategic agility enabled by business intelligence, and related innovative strategic practices. Chapter "Strategic Agility— Integrating Business Intelligence with Strategy" provides a model to help determine the relations and fit between business environment (e.g. stabile vs. dynamic), company strategy (e.g. differentiation vs. low cost) (Porter 1980), and value system organization (e.g. markets vs. hierarchies) (Williamson 1985), reflecting the classic contingency theory (Lawrence and Lorsch 1967).

With regard to the concept of real-time strategic management, this book uses a compilation of underlying concepts, such as strategic agility, practices, business intelligence, and the knowledge process. These underlying concepts integrate the ideas in different chapters to provide a coherent approach toward real-time strategic management. One of the central concepts selected for this book is strategic agility. We suggest the concept of strategic agility reflects a company's capacity to renew its strategy, business model, and operations (Doz and Kosonen 2010; Weber and Tarba 2014). Strategic agility describes a strategic orientation through which a company constantly senses, seizes, and reconfigures resources for rapid adaptation (Teece et al. 2016), or strategic learning (Sirén and Kohtamäki 2016). For strategic agility, companies require sufficient capacity to absorb knowledge, analyze and conduct strategic decisions, set targets, measure, follow-up, and reward behaviors that support strategy implementation (Kaplan and Norton 2000; Rabetino et al. 2017). Thus, in this book, real-time strategic management is considered a key enabler of strategic agility. In an agile organization, strategic practices take place throughout the organization. Strategy is not only something undertaken by top management, but strategic activities also emerge from different organizational functions—strategy is what the organization does (Mintzberg and Lampel 1999). Sometimes, it is

difficult even for companies themselves to comprehend the strategies they utilize, and strategic cognitions may vary, even within firms or top-management teams (Gavetti and Levinthal 2000). Hence, the cognitive perspective (strategic decision making) is particularly relevant when trying to understand decision making and strategy implementation.

This book adopts a practice perspective on digitization, management information systems, and business intelligence. Digitization has opened both the external and internal environments of organizations to constantly having to reconfigure processes surrounding information and knowledge resources. Accordingly, new observations, interpretations, and applications have been enabled faster than ever before. Thus, on the one hand, digitization enables more effective management than before, if an organization can utilize the opportunities provided. On the other hand, a more open environment makes organizations more vulnerable to the surrounding world and subsequent security threats, against which any organization must guard itself (Iansiti and Lakhani 2014). This book considers management information systems as enablers of real-time strategic management. Collecting, storing, analyzing, and implementing knowledge are easier than in the past because of the digitization, increasing knowledge-processing power and storage capacity. Furthermore, the connectedness of organizations, people, and things allows increasing amounts of data to be utilized for strategic decision making (Porter and Heppelmann 2015), whether human or artificial. Various chapters in this book analyze and describe how digitization takes different forms in a variety of functions that facilitate strategic agility, financial decision making, competitive intelligence, customer relationship management, human resource management, supplier intelligence, and decision making. In addition, we provide a conceptual overview of business intelligence and related literatures.

The existing strategic management literature has approached strategy from a variety of contents and process perspectives (Ketchen et al. 1996). The former has focused on content-level questions; for instance, what types of strategies companies have utilized. The latter has concentrated on the process view of strategy, what types of processes are utilized to generate strategy content (Hutzschenreuter and Kleindienst 2006). While acknowledging some of the important works conducted by the process

view, some chapters utilize the practice perspective (Jarzabkowski 2008; Vaara and Whittington 2012; Whittington 1996) as an approach focusing on the micro-levels of strategy work. The strategy-as-practice view focuses on the practices that companies actually utilize, such as managerial agency, and words and actions that come to constitute company strategy. For instance, the "Strategic Agility—Integrating Business Intelligence with Strategy" chapter considers practices in strategic agility, while the decision making in Chap. "Making Sense of Strategic Decision Making" combines the practice view with organizational identity (Nag et al. 2007) and sensemaking (Daft and Weick 1984). Chapters on customer relationship management (CRM and Customer Intelligence), human resource management (HR Intelligence), and supply chain management (Supply Chain Intelligence) each present various practices from their functional perspectives. The emerging strategy-as-practice perspective has brought the concept of practice to theorizing on strategy work, with an emphasis on the micro-practices utilized by top and middle management (Balogun and Johnson 2004; Mantere 2008; Rouleau 2005). The practice perspective sees strategic practice not only as something that occurs in board meetings, but also in different organizational levels including practices, such as sales meetings, department meetings, or social media. Thus, strategy is more than merely an issue of top management, strategy is found in the words and actions of any organizational member. Hence, the practice perspective on strategy adopted here blurs the boundaries between strategic analysis, choice, and implementation, and between top and middle management, which suggests that strategic practices are relevant when understood properly at the micro-level. Thus, the practice perspective provides a conceptual basis for analysis and discussion of the interplay between strategy and management information systems. As one of its ambitious goals, this book intends to further develop strategy theory to better grasp the enabling effect of information systems. To that end, this book set out to provide some integration between theorizing on strategy work and management information systems (Whittington 2014).

Several chapters in this book highlight the role of middle management. Middle management is seen as having a key role in shaping and implementing agile strategies. Accordingly, the practices that facilitate middle-management participation in strategy work are seen as central

for an agile organization. In alignment with practice theory, we consider that companies and managers (or other actors) utilize a variety of micro-level social practices, which can be related either to the words or actions of different actors. We consider that often, words translate into actions (Seidl and Whittington 2014), and accordingly, organizational discourse has a significant role in the organization's development. Social practices both reflect and shape organizational identity and the organization's character. Thus, social practices reach beyond their limited short-term performance outcomes (Jarzabkowski et al. 2007).

Finally, several chapters take the process view on knowledge acquisition, assimilation, transformation, and exploitation (Zahra and George 2002). The authors of the various chapters—while adopting different perspectives on real-time strategic management in different functions—cover the issue of knowledge processing (Crossan and Berdrow 2003), knowledge absorption (Patel et al. 2015; Zahra and George 2002), or dynamic capabilities (Zollo and Winter 2002). Thus, the chapter authors provide a variety of perspectives on knowledge processing in business intelligence. For business intelligence and real-time strategic management, information needs to be collected, stored, assimilated, analyzed, and implemented. The available conceptualizations are numerous.

The chapters consider a variety of functions and their transition toward real-time management. They also shed light on practices related to company-level strategic agility, business intelligence in general, financial management, customer relationship management, human resource management, supplier management, competitive intelligence, strategic decisions, and project-based solutions delivery. Each chapter is written from a managerial perspective, also providing theoretical insights and a future orientation.

Introduction to the Chapters

After this short introduction to the whole book, the "Strategic Agility—Integrating Business Intelligence with Strategy" chapter delves deeper into strategy and business intelligence, and the conceptual mixture of strategic practices, business intelligence, and strategic agility. As well as providing

a comprehensive framework for the book, it highlights some of the main theoretical grounds for real-time strategic management. The "Strategic Agility—Integrating Business Intelligence with Strategy" chapter goes into more detail about theoretical concepts, measurement, and practices, and it provides deeper insight into the concepts utilized in our framework on real-time strategic management, as well as integrating the idea of strategic learning. Finally, the chapter also aims to align strategic practices and business intelligence technologies.

The "Business Intelligence—Capturing an Elusive Concept" chapter introduces the conceptual frames for business intelligence. It aims to generate the conceptual architecture in order to map the landscape of business intelligence and management information systems and to consider the prior research on business intelligence. The "Business Intelligence—Capturing an Elusive Concept" chapter adds to the first by scrutinizing the information system side of business intelligence. It also illuminates the conceptual and theoretical separation between the literature on strategy and business intelligence. From the literature perspective, the chapter explicates the gap between strategy and business intelligence research.

The "How Management Control Systems Can Facilitate a Firm's Strategic Renewal and Creation of Financial Intelligence" chapter focuses on the financial management of a company from the perspective of strategic accounting and management accounting or control systems. The literature on management accounting systems provides important insights into the control perspective relating to the management of an agile organization. The management control perspective provides important insights into key practices related to strategy implementation, target setting, and measurement and into following up on strategic activities. This chapter also combines the idea of dynamic capabilities with management control systems. These practices have a central role in real-time strategic management, as is also established in the second chapter.

The "Competitive Intelligence—A Strategic Process for External Environment Foreknowledge" chapter introduces the concept of competitive intelligence, focusing on the firm's practices intended to increase decision makers' understanding of the competitive landscape. Incorporating competitive intelligence as part of a company's real-time

management system is at the heart of strategic thinking emerging from industrial economics. This chapter provides interesting insights by identifying best practices for competitive intelligence. It also highlights the disparity between the competitive intelligence perspective and real-world application of theoretical concepts.

The "Human Resource Intelligence—Enhancing the Quality of Decision Making and Improving Business Performance" chapter concentrates on the role of human resource management in business performance. It highlights a variety of high-performance works practices and the role of information systems in human resource management. The chapter also makes a valuable contribution to the HRM literature by listing a variety of practices that can add value to the development of real-time human resource management. In addition, the chapter demonstrates a variety of metrics for human resource management.

The "Business Intelligence Within the Customer Relationship Management Sphere" chapter introduces customer relationship management (CRM), with a variety of practices utilized in the B2B context. The developed framework addresses how to collect, analyze, and implement customer knowledge to facilitate strategic and operational decision making. This chapter provides a managerial framework for customer relationship management, which highlights the role of real-time practices and also illustrates an exhaustive list of key metrics for CRM.

The "Making Sense of Strategic Decision Making" chapter focuses on the cognitive side of strategic decision making, providing insights into strategic cognition, cognitive models, sensemaking processes, and a variety of cognitive biases that influence strategic decision making. Thus, the eighth chapter provides a valuable perspective on the cognitive dimension of real-time strategic decision making and guidance on how to avoid cognitive traps.

The "Project Management Intelligence—Mastering the Delivery of Life Cycle Solutions" chapter focuses on the role of business intelligence in project-based solutions delivery, concentrating on the delivery of complex projects and the role of business intelligence in measuring and managing projects. The chapter provides a valuable model for the project delivery process, providing guidance on how to apply business intelligence to improve delivery if complex solutions projects.

Chapter "Supply Chain Intelligence" concentrates on measurement of the supply chain, providing an integral model and a view on supply chain metrics. The chapter aims to increase understanding of the role and practices of supply chain measurement, producing a broad overall framework for supply chain intelligence.

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Author Biography

Marko Kohtamäki is a Professor of Strategy, and a Director of the "Networked Value Systems" (NeVS) research program at the University of Vaasa. Previously, he worked as a Head of Department of Management as well. Professor Kohtamäki also operates as a Visiting Professor in the Luleå University of Technology and takes special interest in industrial service business or servitization, strategic practices, and business intelligence or management information systems in technology companies. He has published in several distinguished international journals, such as Strategic Management Journal, Industrial Marketing Management, Technovation, Journal of Business Research, and Strategic Entrepreneurship Journal. Kohtamäki has served as a Project Director in large-scale research projects, such as "Future Industrial services" and "Solutions for Fleet Management."