

## Chapter 56

# The Role of Business Analytics in Performance Management

**Kijpokin Kasemsap**  
Suan Sunandha Rajabhat University, Thailand

### ABSTRACT

*This chapter introduces the role of Business Analytics (BA) in Performance Management (PM), thus explaining the theoretical and practical concepts of BA, Performance Management Analytics (PMA), and organizational performance; the overview of performance measurement and PM; the application of Performance Management System (PMS) through BA; and the significance of BA in PMA. This chapter also explains the practical areas of BA and their advantages within the foundation of PM. BA can be used to validate causal relationships within traditional input, process, output, and outcome categories toward business success. Extending the domain of PM to PMA requires new business data analysis skills to gain organizational effectiveness. PMA fills the existing gap between PMS and effective PM adoption. Understanding the role of BA in PM will significantly enhance the organizational performance and achieve business goals in the global business environments.*

### INTRODUCTION

The driving force of BA is to create a win-win situation between business partners through creating valuable trust, strong commitment and improved organizational performance. To gain the business success, it is crucial to continuously monitor and evaluate the individual partners' performances within the business networks. It is quite challenging to know how BA should assess the organizational performance. These business competition requirements challenge PM to effectively support the decision making process. BA is an emerging field that can potentially extend the domain of PM to provide an improved understanding of business dynamics toward better decision making. Many organizations across the globe have been using BA as a competitive differentiator in their operations (Xavier, Srinivasan, & Thamizhvanan, 2011). Organizations have been developing more sophisticated PMS to support decision makers with relevant information. Increased business competition requires more rapid and sophisticated information and data analysis (Schlafke, Silvi, & Moller, 2013). A collaborative business aspires to reach competitiveness, world

DOI: 10.4018/978-1-5225-1837-2.ch056

excellence and business agility within the market segments (Ferreira, Shamsuzzoha, Toscano, & Cunha, 2012). The business networking paradigm implements common strategies and goals, upholds mutual trust, interoperable processes and infrastructures for business practices (Zacharia, Nix, & Lusch, 2009).

In order to manage performance effectively, top executives in organization need to be aware of information processing tendencies and practices within the organization in order to choose a suitable PMS (Sahoo & Jena, 2012). PM is a shared process of the day-to-day management of employees based on their agreement of objectives, knowledge, skills, and competence requirements (Sahoo & Jena, 2012). PM potentially makes the most significant contribution to organizational learning and helps to raise organizational efficiency and promote business growth (Adhikari, 2010). PMS is used to evaluate performance data and identify key success factors (KSFs) within an organization (Schlafke et al., 2013). PMS is commonly used to illustrate an organization's essential means (Garengo, Biazzo, & Bititci, 2005; Broadbent & Laughlin, 2009). PMA is about the data and analytical methods to understand relevant business dynamics, to effectively control key performance drivers, and to actively increase organizational performance (Schlafke et al., 2013). PMA can be a potential success factor of the use of PMS. Conventional PMS focuses on controlling strategy execution, while it is less interested in understanding business dynamics for strategy formulation and decision making (Schlafke et al., 2013). PMA provides a possible explanation for the missing link between highly sophisticated PMS and their effective business implementation. The relationship between the distribution of such PMA systems and organizational success is inconclusive (Micheli & Manzoni, 2010). This chapter introduces the role of BA in PM, thus explaining the theoretical and practical concepts of BA, PMA, and organizational performance; the overview of performance measurement and PM; the application of PMS through BA; and the significance of BA in PMA.

## **Background**

Advanced data analysis, scenario planning, and predictive capabilities are the functions to cope with the complexity, uncertainty, and volatility (Schlafke et al., 2013). These are supported by a continuously grown amount of data which are available for organizations. Organizations have started to focus on analytical approaches to deal with data. PMA can increase the effectiveness of PMS. PMA supports the selective capturing, control, and communication of tangible and/or intangible elements in a causality-based coupling of inputs, processes, outputs, and outcomes. Different BA methods can be used to identify and verify the mentioned causal couplings within PM. These BA-related methods can be qualitative but they can also be adopted with a more analytical level of design. The analytical approach can discover new or hidden business dynamics at a strategic level. Demand forecasting, price setting, customer value prediction, marketing effectiveness evaluation, and supply chain management (SCM) intelligence are the examples of BA. Analytical approaches that support PM are always based on information systems. PMA evolves when different areas of expertise merge are combined with analytical methods.

## **ROLE OF BUSINESS ANALYTICS IN PERFORMANCE MANAGEMENT**

This section introduces the concepts of BA, PMA, and organizational performance; the overview of performance measurement and PM; the application of PMS through BA; and the significance of BA in PMA.

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/the-role-of-business-analytics-in-performance-management/176803](http://www.igi-global.com/chapter/the-role-of-business-analytics-in-performance-management/176803)

## Related Content

---

### Seru: The Organizational Extension of JIT for a Super-Talent Factory

Kathryn E. Steckle, Yong Yin, Ikou Kaku and Yasuhiko Murase (2012). *International Journal of Strategic Decision Sciences* (pp. 106-119).

[www.irma-international.org/article/seru-organizational-extension-jit-super/63658](http://www.irma-international.org/article/seru-organizational-extension-jit-super/63658)

### Suggestions for Achieving Balance between Corporate Dataveillance and Employee Privacy Concerns

Ordor Ngowari Rosette, Fatemeh Kazemeyni, Shaun Aghili, Sergey Butakov and Ron Ruhl (2017). *Decision Management: Concepts, Methodologies, Tools, and Applications* (pp. 1863-1875).

[www.irma-international.org/chapter/suggestions-for-achieving-balance-between-corporate-dataveillance-and-employee-privacy-concerns/176836](http://www.irma-international.org/chapter/suggestions-for-achieving-balance-between-corporate-dataveillance-and-employee-privacy-concerns/176836)

### Application of Conjoint Analysis in Improving the Value of New Product Development: A Hotel Case Study Analysis

Brian J. Galli, Mohamad Amin Kaviani, Paula Steisel Goldfarband Ardeshtir Shahmaei (2017). *International Journal of Strategic Decision Sciences* (pp. 11-30).

[www.irma-international.org/article/application-of-conjoint-analysis-in-improving-the-value-of-new-product-development/185537](http://www.irma-international.org/article/application-of-conjoint-analysis-in-improving-the-value-of-new-product-development/185537)

### Fusing Theory to Practice: A Case of Executing Analytical Strategic Leadership Tool

S. Asiya Z. Kazmi, Marja Naaranoja and Juha Kytölä (2015). *International Journal of Strategic Decision Sciences* (pp. 22-41).

[www.irma-international.org/article/fusing-theory-to-practice/143200](http://www.irma-international.org/article/fusing-theory-to-practice/143200)

### A Case Study of Decision Support System and Warehouse Management System Integration

Alparslan Sari and Ismail Butun (2021). *Decision Support Systems and Industrial IoT in Smart Grid, Factories, and Cities* (pp. 111-138).

[www.irma-international.org/chapter/a-case-study-of-decision-support-system-and-warehouse-management-system-integration/282429](http://www.irma-international.org/chapter/a-case-study-of-decision-support-system-and-warehouse-management-system-integration/282429)