# Chapter 11 Business Intelligence, Knowledge Management, and Customer Relationship Management Technological Support in Enterprise Competitive Competence

Ming-Chang Lee National Kaohsiung University of Applied Science, Taiwan

# ABSTRACT

The approach of knowledge management, business intelligence, and customer relationship management was used as theoretical technologies in order to build an intelligence enterprise framework. Since the business intelligence process can create additional customer value through knowledge creation with the customer, business intelligence can provide users with reliable, accurate information and help them make decisions. Customer relationship management focuses on the integration of customer information and knowledge for finding and keeping customers to grow customer lifetime value. Therefore, integrating intelligence enterprise is needed in order to respond to the challenges the modern enterprise has to deal with and represents not only a new trend in IT but also a necessary step in the emerging knowledge-based economy. In intelligent enterprise operations, KM contains business models, processes, competence, implementation, performance assessment, and enterprise in information, organization, and e-commence processes.

## INTRODUCTION

How to create a sustainable competitive advantage have been the core issues of the enterprise management. Enterprise must adjust rapidly their policies and strategies in order to respond to sophistication of competition, customers and suppliers, globalization of business, international competition (Albescu, Pugna, & Paraschiv, 2008). Enterprise address these challenges have been

DOI: 10.4018/978-1-4666-9562-7.ch011

developed in two different approaches: structured data management (BI) and unstructured content management (KM and CRM).

KM plays an important role in selecting the right information at the right time from several pertinent resources (Perko & Bobek, 2007) while converting it to useful insightful acumen so that an organization can get maximum benefits from it. Effective knowledge management helps the processing industry to accumulate core knowledge, build corporate intelligence and obtain a competitive edge. The aims of CRM at leverage investments in customer relations are to strengthen the competitive position and maximize returns. KM and CRM have been the focus of attention in organizations and academic contexts. KM and CRM both strive to obtain the constant benefits of competition through the optimization of the organizational resource in order to support commerce leading to competitive advantage (Gebert, Geib & Kolbe, 2003). Focusing on customer processes requires knowledge of considerable extent. Customer-focused companies provide three types knowledge, knowledge that customers demand, process the knowledge that customers pass to the company and processes knowledge about customer (Bueran, Schierholz, Kolbe, & Brenner, 2004). This means that knowledge support allows for performance enhancement in customer oriented business process.

CRM focuses on the integration of customer information, knowledge for finding and keeping customer to grow customer lifetime value. CRM requires continuant input of their information into the organization through CRM and the organization makes the information meaningful through KM. Therefore, the organization needs complete integration between KM and CRM to become successful in competitive market (Attafar, Sadidi, Attafar, & Shahin, 2013).

BI systems connected with CRM system and Enterprise Resource Planning (ERP) will provide an enterprise with a competitive advantage (Liautaud & Hammons, 2002). Systems of BI standard combine data from the environment e.g. statistics, financial and investment portals and miscellaneous dataset. BI provides adequate and reliable up-to-date information on different aspects of enterprise activities (Olszak & Ziemba, 2003). BI systems refer to decision making, information analysis and knowledge management, and humancomputer interaction. Therefore, BI also often associated with systems such as Management Information Systems (MIS), Decision Support Systems (DSS), Executive Information Systems (EIS), management support systems and business /corporate performance management (O'Brien & Marakas, 2007).

The aim of this paper is to propose an integrated intelligence enterprise model for KM process, BI optimization and CRM process. This research begins with a presentation of the research model about the relationship between KM and BI, CRM between BI optimization and CRM between KM. Then under the conceptual model, we build the enterprise competence framework, intelligence enterprise process in order to enhance organizational competition advantage. Integrated framework illustrates how the three technologies can complement each other to improve organizational performance. A research conceptual framework denotes as Figure 1.

This chapter will proceed as follows: section 2 will discuss the background of the research; section 3 will use CRM process, KM process, and BI process to build intelligence enterprise framework; section 4 will discuss the enterprise business model, process, competence, implementation, assessment performance and enterprise in information, organization, and e-commence process; Section 5 is the conclusion.

## **1. LITERATURE REVIEW**

CRM has an important role to help organizations to keep their customers and to make them loyal. CRM role is more important in customer retention 16 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/business-intelligence-knowledge-managementand-customer-relationship-management-technological-support-in-enterprisecompetitive-competence/142619

## **Related Content**

A Case Study to Improve Data Vendor Selection Rick McGraw (2014). Information Quality and Governance for Business Intelligence (pp. 314-328). www.irma-international.org/chapter/a-case-study-to-improve-data-vendor-selection/96157

### Deep-Mental Workload Intelligent System: An AI-Augmented System to Predict Employee Mental Workload Based on EEG Data Using Deep Learning

Guo Foong Ng, Pantea Keikhosrokianiand Minna Isomursu (2024). *Data-Driven Business Intelligence Systems for Socio-Technical Organizations (pp. 268-298).* www.irma-international.org/chapter/deep-mental-workload-intelligent-system/344156

#### Empirical Evaluation of Ensemble Learning for Credit Scoring

Gang Wang, Jin-xing Hao, Jian Maand Li-hua Huang (2010). *Business Intelligence in Economic Forecasting: Technologies and Techniques (pp. 118-137).* www.irma-international.org/chapter/empirical-evaluation-ensemble-learning-credit/44252

#### Sentiment Analysis in Supply Chain Management

Lincoln C. Wood, Torsten Reinersand Hari S. Srivastava (2014). *Encyclopedia of Business Analytics and Optimization (pp. 2147-2158).* 

www.irma-international.org/chapter/sentiment-analysis-in-supply-chain-management/107401

#### Customer Satisfaction in the Context of Online Gaming Service: The Hedonic Experience Factor

Jiming Wu (2014). International Journal of Business Analytics (pp. 63-80). www.irma-international.org/article/customer-satisfaction-in-the-context-of-online-gaming-service/117549