Examine the Role of Data Mining in Achieving the Goals of Knowledge Management in Organization

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ABSTRACT

Change of attitude of organizations’ managers toward human forces (as human capitals and resources) as well as technological advancement and accumulation of information in organizations reflects the necessity of valuing knowledge management. On the other hand, extraction of necessary, appropriate information and turning them into the knowledge required by organizations for making decisions, visioning the strategic future, and creating competitive advantage calls for application of new methods. Data mining is the means used by organizations and managers to extract knowledge from a pile of information stored in a knowledge-base management system. The present survey study is a descriptive research. The statistical population for this research included 110 employees and managers of the headquarters of the Bank Saderat Iran. In order to discover facts and expand the questionnaire statements the principal component analysis (PCA) method and linear structural relations (LISREL) were employed. Research findings revealed that the data mining technique, as a very important means of knowledge management, leaves a positive significant effect on the attainment of knowledge management goals of organizations through usage of knowledge resources.

Keywords: Competitive Advantage, Data Mining, Information of Technology, Knowledge Extraction, Knowledge Management, Organization Resources

1. INTRODUCTION

The banking system is a factor contributing to the economic development of every country. Banks are economic enterprises that similar to any other economic enterprise try to gain more profit to survive. Profit is also gained by satisfying and attracting customers through the application of knowledge and information. Today, it is difficult and sometimes impossible to provide products and services with satisfactory quality and price without proper management and application.
of knowledge. If an organization fails to use its stock of information, its survival chance decreases. It is not enough for an organization to be aware of its assets. Rather, organizations need to be aware of the information they lack as well. Identification of the organization’s needs requires special insight and vision which can be achieved through management of knowledge (Saliss & Jones, 2002).

2. RESEARCH LITERATURE

2.1. Knowledge Management

Knowledge management is aimed at gaining access to new knowledge resources. To this end, knowledge management relies on new theories such as the social knowledge management theory, which aims to gain access to the massive information resources of customers (Retna & Tee NG, 2011).

Today, building and keeping relationships with customers not only are important for the sales of products and services, but also help find access to the information and knowledge of the customer. This latter concept is discussed in the context of knowledge management systems (Winer, 2001).

Establishment of the knowledge management system in the organization leads to the development of an organization’s knowledge of customers. The knowledge management system can maintain and provide knowledge management procedures and systems necessary for achievement of the entire body of knowledge. This, in turn, can result in increased added value for the organization and customers. Knowledge management provides the instruments, procedures and databases required for sharing the available knowledge with customers and employees. This enables the organization to add to the value of integration of customers’ knowledge and eventually leads to an increase in quality of services. Hence, employees show more interest in sharing their knowledge of customers and experiencing the resulting added value (Murry, 2006). Knowledge management is a process through which organizations use the collected information (Tsong, 2009).

It is a system running knowledge assets of an entire organization (explicit and implicit knowledge) (Michael, 2004).

Liebowitz (2005) illustrated the concepts of data, information, knowledge, and organizational processes in a model, on which data is transformed into practical information. Information also results in knowledge, which is used for enhanced individual and organizational processes (Mian M. Ajmal, 2009).

According to the definition of the American Productivity and Quality Center (APQC), knowledge management refers to a strategy aimed at providing proper knowledge to the proper user at a proper time (Chin-Tsang, 2009).

Wig defines knowledge management as a set of activities conducted to obtain an overall understanding of attitudes and to benefit from areas requiring the attention of the management. It also includes identification of prominent alternatives, recommendations of methods for handling definitions, and direction of activities to achieve the desired results (Chan, 2007).

3. DATA MINING

The daily expansion of industry, changes in the culture and taste of people, the rapid growth of technology, and the competitive market all necessitate a most prevalent application of the data mining knowledge to the management of industries, especially the banking industry. The necessity of utilizing knowledge and its consequent benefits is so serious that all of the world industries are forced to make major investments in the expansion and development of information systems and specifically the data mining knowledge. By collecting customer data and making decisions on the basis of patterns extracted from the hidden relationships among data (through data mining) it is possible to satisfy customer needs. Data mining is the process of analyzing and studying a large amount of data with an aim to discover patterns and hidden significant laws within the data. The semi-
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