Abstract

The emerging of Big Data (BD) in recent years as the latest development of Business Intelligence (BI) and Business Analytics (BA), representing new and unusual sources of data (e.g. social media, sensors), advanced technologies (e.g., Hadoop architectures, visualisation, predictive analytics), and new requirements of user skills (e.g., data scientists). This has a major impact on the fundamental of the traditional Business Intelligence (BI) and Knowledge Management (KM) processes.

How does this trend square with the way we conceptualize knowledge as intellectual capital and value it? Knowledge management and business intelligence have both recognized data and information though generally as non-value precursors of valuable knowledge assets. In establishing the conceptual foundation of big data as an additional valuable assets related to knowledge, we are making a case for bringing big data and business intelligence into the KM fold. In developing this theoretical foundation, concepts such as tacit and explicit knowledge, learning, and others can be deployed to increase understanding. As a result, we believe we can help the field better understand the idea of big data and how it relates to knowledge assets as well as providing a justification for bringing knowledge management tools and processes to bear on big data and business intelligence, a move towards an integrated conceptual model of big data (BD), business intelligence (BI) and knowledge management (KM).

KM is the continuum of BD as the main information deposit, and BI is an activity necessary for the mobilization of the information resource. Thus it necessitates the collective intelligence to be structured in the context of BI to convert data into actionable knowledge for strategic advantage relative to the various organizational environments. This paper will contribute to the creation of such a model that is the focus of on-going research.

The aim is to propose an integrated BDBIKM model that represents the processing of raw data and its transformation into contextual knowledge that can be adopted to add specific business value in practice and innovate knowledge to provide unique competitive advantage.

Keywords

Big data (BD) Business intelligence (BI) Knowledge management (KM)