Organizational Capability Readiness Towards Business Intelligence Implementation

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ABSTRACT

Business intelligence (BI) has widely been recognized due to its growing applications in improving the decision-making support. The growing trend of BI applications necessitates a study on organizational capability readiness which offers significant effects in BI implementations. However, a limited number of studies focused on issues related to organizational capability readiness for BI implementations. Therefore, this study aims to analyze and explore an integrated view of literature in relation to organizational capability readiness for BI implementations. A qualitative content analysis of relevant sample articles was conducted for exploring the thematic understanding on organizational capability readiness for BI implementations. The main findings of this review study are classified in two categories, i.e., readiness of managerial proficiency and readiness of IS-led environment. The first category “readiness of managerial proficiency” integrates several factors such as the readiness of awareness, commitment, and absorptive capacity. The second category “readiness of IS-led environment” integrates the readiness of technological support, personnel capability, and data quality management. The findings of this review study would significantly contribute to the researchers and practitioners for the sustainable development of BI implementation in business.

KEYWORDS

BI implementation, Decision making, Environmental changes, Information management, Organizational capability readiness

INTRODUCTION

Business intelligence (BI) is an emerging trend in improving decision support for business success. Rapid acceleration of BI applications in analysing often uncertain changes within the business environment (Singh & Singh, 2013) and conducting those changes (Isik et al., 2013) has brought thoughtful attentions of both IS practitioners and researchers. BI provides the decision-making aids that guide business achieve competitive advantages emerging from those changes (Guarda et al., 2013).

The decision making is an emerging issue (Maani, 2013) as it evaluates and analyzes the current and future environment (Polasky et al., 2011). It helps business to steer uncertainty out from unanticipated changes within the environment (Jansen et al., 2005; Chen et al., 2012, Al-ma, 2013). As rapidity and consistency of changes raise the issue of the decision making in business (Maani, 2013), quality information emerging from those changes becomes vital for quality decision (Ponelis

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& Britz, 2011, Citroen, 2011). BI is an application of information system (IS) (Williams & Williams, 2010) business uses in accumulating disseminating, assimilating, and exploiting information into the decision-making process, which leads to change adaptation in businesses (Gangadharan & Swami, 2004). BI is defined as “the process of integration of data from disparate internal and external data sources, applying analysis tools and techniques to understand the information within the data, making decisions, and taking actions based on this gained insight” (Gangadharan & Swami, 2004, p.139). Although BI implementation seems business imperative to conduct information management and the decision making using given information (Olszak & Ziemba, 2006, Guarda et al., 2013, Isk et al., 2013), discovering factors of BI implementation seems important.

Information management satisfies manager’s information-based needs for the decision making (Doucek, 2015, Polasky et al., 2011). As BI is the conductor of information management, information management capability becomes an issue of BI implementation. Further, Brinkhues et al. (2014) cited from Rumelt (1991) argue that information management capability depends on a firm’s organizational capability, which appears a logical factor of BI implementation. It is important to note that the business environment is always dynamic (Rolfe, 2010) that necessitates iteration of the decision making to keep conducting changes and achieving competitive advantages of those changes (Polasky et al., 2011). As new decision requires new information management, BI application cannot be static (Guarda et al., 2013). Therefore, BI implementation as an ongoing process necessitates the readiness of organizational capability in business.

The purpose of this study is to explore an integrated view of literature that how the readiness of organizational capability offers significant effects in BI implementation. As BI is an IS-led application and its implementation is a managerial role, understanding factors related to IS-driven and managerial capabilities of organization is the particular objective of this study. For identifying readiness of desired factors, the study conducts a literature review for collecting and analyzing relevant contents towards BI implementation. The qualitative content analysis was conducted for the study procedure. This approach generates themes inductively from the given data (Miah & Genemo, 2016) and draws the inference by examining those themes (Zhang & Wildemuth, 2016). Finally, this approach has been recognized for exploring the social reality of BI implementation in business.

**BACKGROUND**

Nowadays, decision support is an emerging trend of IS research that offers a practical solution about the uncertainty of constant changes within the environment (Chai et al., 2013). The current business environment is characterized with rapidity, consistency, the uncertainty of changes in diverse instances. Continuous diverse changes (e.g. climate change, market competition, technological innovation, & business dynamisms) create newness in customer interests, market demands, competitive pressure, pricing and supply chain management (Zainun Tuanmat & Smith, 2011, Cavalcante et al., 2011, Karanasios, 2011, Ponelis & Britz, 2011). Rapid and often uncertain changes and environmental volatility (Cavalcante et al., 2011) offer disparate opportunities such as technological flexibility, low-cost networking, high labor cost reduction, and rapid communication (Kanabiran & Dharmalingam, 2012). In contrast, some businesses (e.g. small-scale businesses) face difficulties in terms of business order (Coleman et al., 2010, Irijayanti & Azis, 2012). As unanticipated opportunities and threats (Stodder, 2013) become the issue of business survival and development, taking such opportunities and encountering threats are important. Eventually, the decision making becomes a challenge for business success as it guides to conduct change occurring within the environment (Baker, 2012, Guarda et al., 2013).

The decision making is defined as the selection of action and/or method organization requires to conduct the changing environment associated with speedy responsiveness (Guarda et al., 2013). The decision making is a problem-solving model that enables organization to adjust business beyond those changes (Chai et al., 2013). As the decision making plays a significant role in adjusting business beyond diverse changes (Guarda et al., 2013, Stodder, 2013), knowledge acquisition and exploitation
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