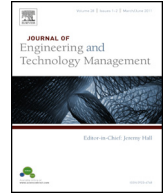




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Design and development of a corporate sustainability index platform for corporate sustainability performance analysis



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ABSTRACT

This paper describes the design and development of a corporate sustainability index (CSI) platform for corporate sustainability performance (CSP) analysis. The CSI platform design was theoretically underpinned with management theories of CSP and organizational theories. A prototype system was developed and evaluated to demonstrate the feasibility of the design and the usability of the functionalities of the proposed CSI platform. Based on our search in several online journal databases (ABI/INFORM database, Academic Search Elite, ACM Digital Library, Emerald Fulltext, and Science Direct), we have observed that no literature exists on the application of corporate sustainability index (CSI) prototype systems for CSP analysis. This study includes the first identifiable application of a CSI prototype system for CSP analysis in the academic literature. The prototype system will be further developed and then converted into an industry-scalable CSI platform. The prototype system is expected to be further developed and converted into an industry scalable CSI platform.

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Introduction

Nowadays, organizations are motivated to adapt to the new economy within the framework of social dialog in consideration of the ethical and social aspects of business as well as the advent of

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globalization, environmental pollution, and shortage of resources (Gao, 2009; Graafland et al., 2004; Ho et al., 2012; Muller and Kolk, 2010; Van Marrewijk et al., 2004; Van Marrewijk, 2003; Wood, 1991b). This social pressure continues to play a critical role in the survival of organizations, such as multi-national companies, especially with regard to the increasing and changing expectations of stakeholders (Ho et al., 2012; Husted, 2000; Weaver et al., 1999). Stakeholders expect more social responsibilities and higher social performance from organizations. For example, an increasing number of consumers or investors require companies to disclose their corporate sustainability responsibility activities, such as environmental protection efforts (Bayoud et al., 2012; Lee et al., 2009). However, organizations presently use different corporate sustainability performance (CSP) frameworks to present stakeholders' expectations regarding the organizations' contributions to profit, society and the environment. The interpretations of CSP domains differ with different CSP frameworks, thus leading to difficulties in comparing CSPs among organizations. The CSP can only be correctly perceived by the public if its social and environmental value creation is transparent (Graafland et al., 2004) and information are properly disseminated to the public.

Despite the importance of CSI platform in supporting and furthering the efforts of corporate social responsibility (CSR) research in the academe and in practice, existing literature has not paid attention to the design and development of such CSI platform. The literature mainly focuses on the effect of CSP reporting on CSI (e.g. Adam and Shavit, 2008; Griffin and Mahon, 1997), antecedents of CSP (e.g. Wong et al., 2011) and measurement of CSP (e.g. Wood, 2010). To improve the transparency and the public awareness of CSP efforts, this study proposes a CSI framework, whose design and development aims to analyze and report the CSP efforts of enterprises in the community. The Web-based CSI platform is expected to assist organizations in CSI reporting and analysis. This can also provide CSI advice and recommendation, research education and training opportunities, as well as useful information to promote the CSP of the organization and share CSI knowledge with the industry. This paper is organized as follows. First, a brief introduction of the CSP/CSI and design framework of the CSI platform is provided. Subsequently, we present the system development research process of the CSI platform based on a five-stage system development approach for the development of information systems. Thereafter, we explain the theoretical and practical contributions of the proposed design framework. Finally, we conclude with suggestions for future research.

Corporate sustainability performance (CSP) and corporate sustainability index (CSI)

CSP is defined as the “organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships” (Wartick and Cochran, 1985; Wood, 1991a, p. 693). CSP is an assessment of the degree to which an organization goes beyond compliance and engages in actions that result in social benefits that are beyond the pure financial interest of the organization (De Bakker et al., 2005; McWilliams et al., 2006). It is an overarching concept that includes responsibilities, responsiveness, policies, actions, and outcomes (De Bakker et al., 2005; Wartick and Cochran, 1985; Wood, 1991a,b). Existing research suggest that CSP delivers various benefits, such as customer satisfaction and loyalty, customer-firm identification, price premium and brand equity, that maximize the market value of the firm (Lai et al., 2010; Lee et al., 2009; Luo and Bhattacharya, 2009; Mackey and Barney, 2007). In addition, CSP improvement can attract and retain quality employees, reduce costs, and prevent costly stakeholder conflicts (Hull and Rothenberg, 2008).

Among the various CSP frameworks, Wood’s model (Wood, 1991a) provides the most detailed classification, because it demonstrates the interrelationships among the principles, processes, and products (outcomes) (Swanson, 1995). According to this CSP model, a researcher may examine CSP using the following: (1) the degree to which principles of social responsibility motivate actions taken on behalf of the company; (2) the degree to which the firm uses socially responsive processes and the existence and nature of policies and programs designed to manage the societal relationships of the firm; and (3) the social impacts (i.e., observable outcomes) of the actions, programs, and policies of the firm (Wood, 1991a). These concepts are referred to as the 3Ps (principles, processes, and products) of CSP. “Principles” accept the existence and importance of the economic and social responsibility of organizations (Ho et al., 2012). It comprises the fundamental idea of corporate social responsibility

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