



Key factors of sustainability in project management context: A survey exploring the project managers' perspective

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Abstract

Topics of project management and sustainability have been addressed by countless studies, but research focusing on the intersection of these topics are needed. This research looks at sustainability through the triple-bottom line perspective: economic, social, and environmental. It aims to identify key aspects of sustainability in project management context and to understand its importance based on project managers' lens. A systematic literature review merging bibliometric and content analysis was applied toward an understanding of the key topics. Further, a survey of project managers was performed and analyzed through exploratory factor analysis. The results show that four factors stood out: Sustainable Innovation Business Model, Stakeholders Management, Economic and Competitive Advantage, and Environmental Policies and Resources Saving.

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1. Introduction

Social, economic, and environmental challenges have become increasingly complex, forcing organizations to innovate, manage change, and adopt new activities (Pope et al., 2004; Wilkins, 2003). In addition of this fact, there is an increasing interest in using practices in project management (PM) and certifying professionals in this field, supported by bodies of knowledge proposed by the institute (PMI, Project Management Institute, 2013) and associations (IPMA, 2013). Project management and sustainability have been addressed by countless studies, but the intersection between these two fields is still rarefied with just a

few studies that have focused on both topics. According to Gimenez et al. (2012) and Kleindorfer et al. (2005), sustainability integrates social, environmental, and economic responsibility in order to create a rational use of present resources and to offer normal life for future generations.

Some initiatives aiming to integrate these two themes are already underway (Silvius et al., 2013; Gareis et al., 2013; Martens et al., 2013; Sánchez, 2015; Silvius and Tharp, 2014; Anning, 2009; Bernhardt et al., 2000; Bodea et al., 2010; Fernández-Sánchez and Rodríguez-López, 2010; Hartig et al., 1996; Jones, 2006; Mulder and Brent, 2006; Raven et al., 2009; Turlea et al., 2010; Vifell and Soneryd, 2012), but much additional research is needed to develop tools, techniques and methodologies (El-Haram et al., 2007; Singh et al., 2012; Thomson et al., 2011) that can be applied in project management to assess sustainability at the project or organization level (Carvalho and Rabechini, 2011; Cole, 2005; Deakin et al., 2002; Thomson et al., 2011).

The need for studies on the converging themes of sustainability and project management, coupled with the growing importance of

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both topics in the current business context, drove the development of this study, which aims to contribute to a better understanding of the theme of sustainability in project management. Accordingly, this study aims to fulfill this gap by identifying the key aspects of sustainability in project management context and understand the importance based on project managers lens. The research design applies multi-method approach, combining a systematic literature review and survey-based research.

The main contribution leads to approaching sustainability in project management context and defining the key factors, based on the project managers' perspective, which are Sustainable Innovation Business Model, Stakeholders Management, Economic and Competitive Advantage, and Environmental Policies and Resources Saving.

This paper is structured in six sections. Following this introduction, Section 2 presents the literature review. In Section 3, the research design is explained. The results are presented in Section 4, followed by the discussion in Section 5. Finally, Section 6 presents the final considerations.

2. Literature review

2.1. Sustainability, sustainable development, and corporate social responsibility

Several international events can be highlighted in the context of the development of standards and mean ideas for the sustainable development (SD). For example, the United Nations Conference on Environment and Development took place the well-known Rio 92, in Brazil in 1992 (which developed the creation of a letter with 27 principles that could offer help and actions for partners and countries); the formulation and sign of the Kyoto Protocol in 1997; the conference called Rio + 10 in Rio de Janeiro again; as well as the Bellagio Principles (Hardi and Zdan, 1997), had been a paramount contribution, among others events. Recently, in July of 2012, again in Rio de Janeiro, chairmen of countries and States (called the ONU system) and the civil society participated of the Rio + 20 that discussed three main topics: the green economy in the SD context, the eradication of the poverty, and the institutional structure for the SD. This event developed a publication of an official report named "The future we want" confirming the commitment between countries to reach the SD (Rio+20, 2013).

A broader accepted concept of SD is the one given by the World Commission for the Environment and Development, and it is important in order to understand and to formulate the concept of sustainability. According to the report named "Our Common Future," SD is defined as the development that meets the needs of the actual generations without compromising the needs of future one (WCED, World Commission on Environment and Development, 1987). A concept of SD more acceptable is the one based on the integration of economic, environmental, and social dimensions, designing the sustainability known as Triple-Bottom-Line (TBL), and it became widely known (Elkington, 1998; Knoepfel, 2010; Labuschagne et al., 2005; Carvalho and Rabechini, 2011; Gimenez et al., 2012; Talbot and Venkataraman, 2011). In this way, DS is synonymous of

rational society with clean businesses and consequently with economic development (Araújo and Mendonça, 2009). In 2001, the United Nations Commission on Sustainable Development (UNCSD) develops a guidelines and methodologies showing indicators of SD (UNCSD, United Nations Commission on Sustainable Development, 2001). Furthermore, the World Business Council for Sustainable Development (WBCSD, The World Business Council for Sustainable Development, 2006) shows a diagram where SD is similar to Corporate Responsibility (CR) and they are divided in corporate financial responsibility, corporate environmental responsibility, and corporate social responsibility.

According to Araújo and Mendonça (2009), the concepts of SD and sustainability are distinct: SD is commonly associated with the expectation of a country entering in a growth phase and remain so over time, and sustainability is the ability to self-sustaining itself and self-remaining. Thus, we can relate SD with public policies and sustainability with all other actions promoted by the private sector. Furthermore, it can be designed the concept of corporate sustainability (CS), related to actions aimed at the business environment, which is also presented by Baumgartner and Ebner (2010, p.77) when they argue that "sustainable development when incorporated by the organization is called corporate sustainability (CS) and it contains like sustainable development, all three pillars: economic, ecological and social."

In addition to this differentiation, the topic of Corporate Social Responsibility (CSR), used in several studies in scattered directions, deserves to be highlighted and differentiated. As a concept, CSR can be defined as "Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large" (WBCSD, The World Business Council for Sustainable Development, 2006, p.3). On the other hand, the Commission of European Communities describes CSR as a concept, whereby companies integrate social and environmental concerns into their business operations and interactions with their stakeholders on a voluntary basis (Commission of the European Communities, 2001).

The study given by Ebner and Baumgartner (2006) as well as Baumgartner and Ebner (2010) brings a model that provides the topics of SD and CSR properly. To develop the model, these authors reviewed 43 articles and defined 5 major clusters: cluster 1 based SD on the concept of WCED or on the triple-bottom line, cluster 2 is based on CSR in the stakeholders approach, cluster 3 based on CSR in the SD, cluster 4 is based on SD and CSR as interchangeably, and cluster 5 consisted of items that blend the concepts and do not fit in the first 4 clusters. Thus, these authors define their model compounded of SD in the external environment or macro level, in the environment of CS or micro level, and present the economic, environmental, and social dimensions incorporated, but also being influenced by other factors as legal, technological, market, environmental, cultural, and society. The detail of this model is that the authors insert the CSR in the social dimension of sustainability.

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