Sustainable Project Management Using Reference Models of Organizational Behavior

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1. INTRODUCTION

Advances in broadband Internet technology can today deliver high definition video and audio at relatively low-cost. This makes it possible to leverage cost-effective labor around the world to work on development and maintenance projects. The age of the virtual worker has well and truly arrived (Herbsleb & Moitra, 2001).

While virtual teams have solved a number of organizational problems in the developed world (i.e. how to keep overheads to a minimum) it has broader benefits for the world at large, in particular for the developing world. Virtual teaming and the associated governance model is therefore presented in the context of assisting developing countries to gain access to the labor markets of the developed world while simultaneously enabling more environmentally sustainable project management practices.

This article explores the question; *can the governance of virtual teams be optimized through the use of Reference Models of Organizational Behavior (RMOB).* Two subordinate questions will be discussed; *(a) might the RMOB thus be a viable option for developing nations to reap the economic benefits of greater participation in the global economy, and (b) to do so in an environmentally sustainable way?* Exploring this complex question contributes to the project management literature, particularly in relation to the governance of virtual teams, and the evolution of sustainable project management practices.

2. BACKGROUND

The governance of virtual teams is a major challenge facing project managers (Markus et al., 2001). Any project of any complexity will have its significant challenges in the efficient co-ordination of activities, but when complex projects are done by *virtual* teams the degree of difficulty is compounded due to the distributed nature of the team. Coupled with this are the dual streams of learning, action and interdependent processes (Stacey, 2003), all of which all present real problems and challenges for virtual teams. To meet the challenge this article proposes a Process Reference Model for the Leadership of Complex Virtual Teams.

While the Leadership model proposed in this article has implications for the governance of projects and organisations, it also has wider implications. If Leadership can be described as a process and packaged into a model for process improvement purposes, then so can a wide variety of other behaviors that are nonetheless important but difficult to describe. A process-orientated approach is often used to link the underlying explicit or easily identifiable ICT components (i.e. Databases, Applications, Systems and Infrastructure) to the implicit or more intangible assets contained within a modern Organization (i.e. innovation, problem solving, culture, leadership and competencies/capabilities). A process orientated approach is therefore an appropriate way to explore the concept of Leadership.

This article therefore explores *Reference Models of Organizational Performance* (RMOB) as a means to address this shortfall in our ability to adequately describe *implicit* concepts such as leadership within the Firm. RMOBs must conform to the criteria for Process Reference Models (of which RMOB's are a category). These criteria are prescribed in ISO/IEC 15504 (2007) and ISO/IEC 24774 (2007). The leadership RMOB discussed in this article conforms to these standards.

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3. PROJECT GOVERNANCE

The role of project governance is to provide leadership and a decision making framework (Argwal & Rathod, 2006) that aligns the accountabilities and responsibilities associated with the organization's business activities with corporate governance in long term sustainability. This is a critical element of projects as it provides robust and repeatable frameworks to govern a company. The decision making framework is supported by three pillars – structure, people and information. The structure refers to project structure such as steering committee (board), stakeholders and process.

Garland (2009) outlines the logical steps needed to establish a project governance framework for a project or organization. Beginning with the problems typical of ineffective project governance (see Table 1).

Principles 1 and 2 focus on people, the key stakeholders such as the owner of the project. As a project has many stakeholders, therefore, an effective project governance framework provides necessary understanding of these stakeholders and addresses the key stakeholders' needs. Principle 3 deals with the decision-making effectiveness of the project manager.

3.1 Sustainable Governance Performance Indicators

The Sustainable Governance Indicators (SGI) (OECD, 2009) analyzes and compares the need for reform in *Organisation for Economic Co-operation and Development* (OECD) member countries. It is also concerned with each country's ability to respond to current social and political challenges. Two majors SGIs (OECD, 2009):

- **Status Index:** Is based on quantitative and qualitative evaluation and measurements. This index has two dimensions. The first examines different categories including electoral process, access to information, civil rights and the rule of law of each country.
- **Management Index:** Measures in relative terms a government's capability to achieve effective reform. There are two dimensions to this index. The first measures the problem solving capabilities and the strategic steering with respect to the OECD states. This allows us to analyze a government's structure and its process. The key measurements are (a) resources efficiency, (b) analytical categories, (c) international cooperation and (d) institute learning.

Sustainable governance can therefore be evaluated by these prescribed performance indicators (particularly in Management Index, e.g. Executives Capacity and Executives Accountability) (OECD, 2009), thus demonstrating that management and leadership is amenable to being described in terms of process.

4. CAN LEADERSHIP BE DESCRIBED AS A PROCESS?

If leadership can be described in a Process Reference Model (PRM) and supported by a Process Assessment Model, then theoretically so too might the other organizational behaviors not yet serviced by a PRM. For example, ISO/IEC 15504 (2007) gives organizations the means to develop and assess their integrated teaming capability against the measurement framework prescribed by ISO/IEC 15504 (2007).

We begin by examining whether there are grounds to believe that PRMs are applicable in addressing leadership in a project environment? It will be seen from the discussion that PRMs and Model Based Process Improvement (MBPI) can arguably be applied to a range of software engineering challenges, including the challenge of project leadership.

Table 1. Four principles of project governance (Garland, 2009)

Principle 1	Ensure a single point of accountability for the success of the project
Principle 2	Service delivery ownership determines project ownership
Principle 3:	Ensure separation of stakeholder management and project decision making activities
Principle 4	Ensure separation of project governance and organizational governance structures