

# The Key Success Parameters for High-Performance Project Teams

White Paper

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## Abstract

The paper explores why individuals knowledgeable in project management methodologies and practices frequently fail to run projects successfully. Further studies suggest that running projects is a cultural issue as much as it is an intellectual issue. As such, managing projects involves beliefs, norms, and values (Flamholtz & Randle, 2012; Chen, 2010) at both the individual level as well as the organizational level in addition to the framework, structure, and tools associated with project management. The objective of this paper is to identify cultural characteristics associated with successful project management and to associate the framework and tools to these cultural characteristics.

## Introduction

Some years ago, a colleague and I contemplated the difference between “project management” and “managing projects”. We concluded that *project management* consisted of a framework (or structure) for managing projects as well as a collection of tools for successful execution. We further concluded that *managing projects* include the actions that project managers perform day-by-day to run their projects. The inspiration for the discussion concerned the ability of people to learn project management versus their ability to run projects. We discovered that many individuals “know” project management, but still can’t run project successfully.

Several decades of running seminars, consulting, and facilitating projects within various organizations suggest that the intellectual understanding of the framework and tools of project management are insufficient for successful project execution. To put this into perspective, most people have an intellectual and working knowledge of screwdrivers and other basic tools. Many have an understanding of the internal-combustion engine. Despite this knowledge, very few would be capable of fixing a broken car regardless of circumstances.

## Limitations of the Research

The objective of this paper concerns successful implementation of projects at the organizational level. It, therefore, separates pure knowledge-based issues from skill-based issues. Simply put, the objective is not to create academic knowledge, but rather highly-qualified and highly-skilled project managers.

This paper also focuses on issues regarding project management. Education regarding other subject matter is excluded and left for further study.

## Knowledge and Levels of Competency in Project Management

### *Knowledge and Knowledge Transfer*

We begin with some basic definitions. The following definitions derive from Chen (2010) regarding knowledge and knowledge transfer:

**Explicit** – Explicit knowledge can be articulated in numbers and words and is easily shared using data, specifications or scientific means. This kind of knowledge is free of context and can be easily shared.

**Tacit** – Tacit knowledge is the accumulated practical skills or experiences. It is personal and “deeply rooted in individuals’ cognitive processes and/or ingrained in the routine and non-routine processes of an organization’s unique culture”.

**Individual** – Individual knowledge

**Collective** – Organizational knowledge

These perspectives combine to form four (4) basic types of knowledge (Chen, 2010):

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Individual-Explicit	Easiest to transfer, theoretical knowledge
Individual-Tacit	Action oriented, practical experience
Organizational-Explicit	Written roles and procedures
Organizational-Tacit	Routines, norms, and shared beliefs

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Typical training classes that teach methodologies are individual-explicit based. This provides students with a theoretical knowledge but little tacit knowledge of project execution. While some classroom courses include simulations, roll-play, and practice sessions, these limit the environmental factors which are present within the organization. While these actions improve skills, they frequently fail to provide sufficient environmental challenges to students, limiting their development.

### *The Nature of Projects*

Projects offer challenges beyond classical organizational activities to project managers. Specifically, projects involve (Haerem, Pentland, & Miller, 2015; PMI, 2013):

- Complex interdependent networked activities
- Multiple, heterogeneous stakeholders at multiple organizational levels
- Multiple, heterogeneous disciplines
- Unique endeavors requiring new approaches to problems

Projects involve a complex network of interdependent activities. The results of one activity greatly affects several activities downstream. Such results produce a cascading effect where errors and changes grow exponentially throughout the project (Haerem, Pentland, & Miller, 2015).

Projects, by their nature, involve a large number of heterogeneous stakeholders, each with different perspectives, education, authority, and approaches to the organization's objectives (PMI, 2013). Project managers must address higher-level stakeholders, often several layers above them in the organizational hierarchy. Project managers must also address lower-level stakeholders, including team leaders and team members. These stakeholders may exist both inside the organization as well as outside the organization. This increases the number of challenges, situations, and problems.

Furthermore, projects are unique endeavors involving new and different challenges (PMI, 2013). When we combine these critical issues, we conclude that unanticipated and new situations exist within projects, thereby challenging novice and beginner project managers. This differs from intellectual knowledge, such as scientific or pure process-oriented knowledge as might apply to a production line environment.

Additional challenges face novice and advanced beginner project managers as the number of different methodologies for handling projects expands. Until the very recent advent of Agile methodologies (including Scrum), project managers need only learn what we will term "classical" project management employing the Systems Development Life Cycle (SDLC). The latter methodology was based in part on construction industrial practices which aligned with large-scale projects executed in the mid-to-late 20<sup>th</sup> century. As project management has migrated to smaller and faster projects, the classical PM framework failed to produce sufficient results even with proficient project managers. As a result, agile, cyclical, and adaptive methodologies emerged. However, these exhibit similar challenges in that they offer frameworks and tools rather than addressing more cultural issues albeit to a lesser degree.

### ***Cultural Issues and Competency***

Currently, there is a growing academic knowledge base concerning corporate culture. Many scholars now believe that corporate culture is a substantial strategic advantage or disadvantage to an organization (Chen, 2010; Flamholtz & Randle, 2012, Daugherty, 2007). Chen (2010) identifies four levels of competency. These include:

***Table 1: Competency Levels***

<b>Competency Level</b>	<b>Description</b>
Novice	Operates through normative rules and regulations.
Advanced beginner	Observes how more experienced people react in similar situations. The Advanced beginner may imitate behaviors of the more experienced people in similar situations.
Competence	Sees and identifies differences among situations and seeks new rules to handle these. This individual often cannot handle unanticipated problems.
Proficient	The proficient individual has developed their own rules and can apply/adapt these rules to new situations.

These levels suggest that both the organizational culture and individual's culture plays a substantial role in successful project execution.

## **A Cultural Approach to Project Management**

The previous discussion suggests two concerns regarding training project managers. The first is that a successful project managers adapt a successful culture that aligns with the existing organizational culture. This, itself lends a challenge to the project manager in that typically, organizational cultures are process-based. Process skills tend to be more explicitly describable as processes limit the number of challenges and new situations that arise. It further suggests that successful project managers must be methodology independent, or perhaps more accurately, methodology-flexible.

We suggest defining and creating a cultural approach to addressing these issues. The goal of this approach is to help educate prospective project managers concerning implicit-individual and implicit-organizational aspects needed for project success. For this, we define seven Key Success Parameters (KSPs) presented at the cultural level, and then align these KSPs to existing project frameworks and tools.

### **Definitions**

Requirements: Characteristics of the products needed by the customer or other key stakeholders

Project Elements: For simplicity, we define project elements as either work elements ("units of work") or products. Products can be both internal and external, and can include interim products and system components.

### **Key Success Parameters**

This section outlines the Key Success Parameters (KSPs) or characteristics of an organizational culture designed to enhance project performance. We further associate "typical" project management (PM) tool(s) with each KSP.

#### ***KSP 1: Clear Definition***

Basic premise: You can't build something if you don't know what you're building.

PM Tools: Charter, requirements, deliverables definition, scope statement

Certainly, you can't build something correctly if you don't know what you're building. Several project methodologies exist that attempt to handle different levels of project definition. Classical project management, for example, is based on knowing project requirements up-front (to a greater or lesser degree). Agile and Scrum project management is designed to allow the customer to change both the content and priority of product requirements dynamically. However, in both cases, when the team begins execution of a component of the project, that component must be clearly defined. For

this paper, we deem that a component or product is clearly-defined if it has a complete set of measurable requirements. For classical project management, most of these requirements are identified at the beginning. For Scrum, they are identified for each sprint. Regardless of the methodology, execution of any part of a project demands clear definition of that part. The more ambiguity, the greater the possibility of non-acceptance and change.

## ***KSP 2: Ownership***

Basic Premise: Appropriate subject matter experts are the best resources to plan and build components and deliverables.

PM Tools: Ownership model

Scholars have addressed ownership in many different ways. For this paper, we use the ownership model presented by M. Bender (2010). His model defines ownership as “the synergistic integration of responsibility, accountability, and authority”. He further specified definitions of each of these key components (see below).

This KSP is designed to achieve several objectives. The first is to ensure the key decisions are made by appropriate subject matter experts. The second is to identify a single individual who is responsible for all key decisions and deliverables regarding an item. For this discussion, items refer to work units, components, or deliverables. The final objective is to identify the individual who is both responsible and accountable for that item. We address each of these in turn below.

### Appropriate subject matter expertise

Few scholars would disagree that decisions should be made by appropriate subject matter experts. Substantial anecdotal and first-hand experience suggests that many project managers and other key project stakeholders make decisions without involving appropriate subject matter experts. Frequently, these include overall project budgets and schedules, product definition, and resource allocations. Projects, by their nature exhibit a variety of work activities and products (interim and final). When items are complex, they may require a high-level of subject matter expertise. Others can be successfully handled by individuals with lesser experience and knowledge.

### Authority

Again, if we assume the premise that decisions should be made by appropriate subject matter experts, Bender’s ownership model (Bender, 2010) suggests that the owner have full authority of the project element, meaning that the owner can make all decisions regarding that element. In projects, elements may be large or small, simple or complex, stable or risky. This allows all project team members with the opportunity to own some parts of the project.

### Responsibility and Accountability

Bender (2010) defines responsibility as the “commitment to do the job right”. This commitment comes from within the individual him/her self. It can be offered by a superior, but it’s the individual that must accept responsibility. Furthermore, the ownership does not require the individual to be the task performer. As the owner has complete authority, they may delegate the activity (or activities) to others as they deem

appropriate. This allows owners of larger components to divide up the work elements to multiple individuals. These individuals can take ownership of their piece of the larger component helping ensure success.

Bender (2010) defines accountability as “accurate, timely reporting”. With this definition, he suggests that the owner must report when their project element is proceeding well, or if it has run into difficulty. This helps ensure proper escalation of problems to prevent them from festering too long.

Projects contain a large number of interrelated activities, components, and deliverables involving a variety of subjects. Identifying and involving the appropriate subject matter experts ensures the right people are planning and executing the project activities.

Each activity and component has an owner. The owner is both responsible and accountable, and has complete authority for their delivery.

### ***KSP 3: Deliverables Focus***

Basic Premise: The deliverable is the desired result, not the work involved creating it.

PM Tools: Product requirements documents

Many modern societies are work-focused. Many individuals do what they're told with little understanding of the completed product or objective of the activity. In extreme cases, individuals put in their 8 hours and produce no useful products.

The deliverables focus helps align employees' activities directly to the project's deliverables, ensuring their time is productive.

### ***KSP 4: Cooperative Spirit***

Basic Premise: 1) Projects are a complex network of interdependent activities  
2) Projects involve a large number of heterogeneous stakeholders

PM Tool: Communication plan

Projects, by their nature, contain a large number of heterogeneous stakeholders from many different areas of the organization, each with many different levels of expertise, experience, authority, and motivations. The goal of this KSP is to help these stakeholders move the project forward in a consistent direction.

The key tool commonly used for this KSP is communication. The goal is to have project managers, team leads, team members, middle and upper-level management, vendors and client stakeholders working together help drive the project forward.

### ***KSP 5: Manage Task Interdependency***

Basic Premise: Projects are a complex network of interdependent activities

PM Tools: Work Breakdown Structure (WBS), precedence diagram, critical path, critical chain

Projects generally consist of a large number of interdependent tasks. The results of one task become the input into other tasks. If the products created by one team are faulty, the issue can create a ripple effect downstream. Similarly, schedule slips in one task may cause delays downstream.

Project management involves planning and coordinating the design, quality, and schedules of these interrelated tasks to keep the project moving forward.

### ***KSP 6: Rigorous Quality***

Basic Premise: Garbage In-Garbage Out

PM Tools: Peer reviews, quality control and quality assurance

Projects frequently involve a large number of components that work together to create a complete system. Failure of any component can make the system unusable.

Additionally, inter-task dependency suggests that problems associated with one component will have a ripple effect downstream.

This suggests that projects demand rigorous quality control and quality assurance. System theory suggests that each component meets its functional and other quality standards to ensure proper operation.

### ***KSP 7: Risk Management***

Basic Premise: Projects are unique endeavors and risky by nature.

PM Tools: Risk and change management

Projects, by definition, involve uncertainty, risk, and change. Even for well-defined projects, *progressive elaboration* (PMI, 2013) suggests that as both the customer and project team learn more about the project, they will identify new ideas. Furthermore, dynamic external influences may demand changes to project requirements.

Identifying, planning, and managing project risks helps stabilize projects. For this KSP, risk identification includes identifying any issue that can cause a change in one of the three project baselines (time, cost, or scope). This suggests that risk and change management are inseparable. A risk is identified as a possible future event which may have an effect on project time, cost, or scope. The probability of a risk must be between 0% and 100% exclusive. However, when the risk occurs, and if it still has an effect on project time, cost, or scope, it becomes a change as managed by the project's change management system.

## **Summary**

Projects offer unique challenges to organizations. Classical training methods prove less effective in many cultural environments. Architecting an organizational culture that both supports and promotes productive project execution significantly reduces these challenges, shortens project execution, and improves quality.

In this paper, we suggest seven (7) Key Success Parameters designed to affect a productive project environment. Successful implementation of these parameters allows

new and novice project managers to implement basic project management practices. This reduces the overall project life cycle and organizational performance.

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