
ENABLING PROGRAM MANAGEMENT AND MEASURING VALUE

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I. Introduction

The journey to achieving greatness in the execution of program and project management has been a long and arduous trip for many organizations. There are many reasons for the difficulty, some which are self-imposed by the organizations trying to improve themselves.

Today's business environment is fraught with rapid change, organizations and processes are more complex and interrelated than ever before. Traditional structures are slowly crumbling, as leaders begin to build communities comprised of strategic alliances, integration vs. in-house project development, outsourcing vendors, and many other relationships that would be unheard of just a few short years ago.

The velocity of change in today's global economy is unprecedented, and the need to demonstrate and deliver business value early in the project / program cycle is becoming increasingly critical. More significantly, the unwillingness to embrace change, even in the face of overwhelming evidence that change is necessary to provide outstanding customer value, becomes dangerous to the health of the organization.

Tried and true processes supporting traditional waterfall project management have been around for many years, and in many cases aren't well suited to adapt to today's fast paced global environment. Organizations are finding that traditional Project Management involving unyielding discipline and methodical execution of traditionally defined sequential project phases is not yielding business value or levels of customer satisfaction previously experienced. [22]

Improvement initiatives have long been focused on changes to the process. The process is the foundation that is necessary to begin any efforts to improve project performance. The process provides the structure, the foundation for success. A robust process to support projects, however, is a necessary but not sufficient condition for an organization to reach greatness in the execution of projects and programs.

It is this emphasis on process, with little work done to extend the field of thought to much beyond process, that explains the other problems of project management, such as frequent project failures (Kharbanda & Pinto 1996), lack of commitment towards project management methods (Forsberg & al. 1996) and the slow rate of methodological renewal (Morris 1994). [12, 14]

The unyielding focus on refining existing processes ignores the issue of leadership, the need to consider innovative approaches such as lean / agile techniques, as well as the impact of the organizational environment, which consists of the strategy, structures, systems and culture that dictate how the organization will function. [5, 6, 14, 22] A successful attempt to significantly improve the execution of project and program management will comprehend these critical factors.

It is time to step back and comprehend today's brave new world by:

- Applying appropriate focus on business value
- Enabling competencies necessary for leaders to successfully perform in project and program environments
- Deploying metrics that measure success in terms of ROI, business value / benefits delivered and alignment with business objectives
- Adequately communicate those metrics and our alignment with business objectives

II. Differentiating Project Management and Program Management

Program management is different than project management in many ways, not only differences in the process but in the competency skills necessary for successful project management performance. Yet, many organizations utilize similar processes to manage and identical metrics to reflect the success of each.

There are other compelling reasons to differentiate projects from programs:

- The breadth of the organizational impact associated with programs is significant, thus requiring expertise in organizational change management
- The involvement of external organizations increases risk and requires the ability to integrate unique processes into a coherent plan that must be managed somewhat differently than that of a project
- Metrics that typically measure project performance are not sufficient to be indicative and predictive of program performance

Projects are well governed by traditional project management processes. Projects are of a short duration and are characterized by a well defined scope, minimal complexity and ambiguity. As such, change, issues and risks are easily contained. Perhaps more importantly, the organizational impact associated with any change brought about by the project deliverables is well defined.

Programs, generally defined as a collection of inter-related projects, involve significantly more complexity. Programs typically address corporate strategies. They are significantly more complex than projects; much of that complexity is derived from the involvement of many organizations, both internal and external. Their performance is more visible to senior management; the breadth of the impact is great, and they are typically high dollar initiatives.

The Civil Engineering Research Foundation (CERF) was asked by the US Department of Energy (DOE) to identify key components affecting project performance, and to evaluate the correlation of performance factors, measures, and metrics to project success. [23]

Among the many critical success factors identified:

- Organization and personnel, as well as the performance of those personnel
- An "effective DOE Project Director with the right skills, including an understanding of the difference between assuming a leadership role and directing actual project execution" [23]

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- Dealing with the unpredictability of events influenced by external suppliers
- Integrated program team utilization enabled by previously agreed to requirements for integration
- Effectively integrating different processes and cultures from those external suppliers

This study is one of many that conclude the application of leadership skills has a high correlation to the success of a program. [15, 16, 19] A sampling of these leadership skills includes:

- Communication
- Relationship management, both internally and externally
- Situational leadership skills
- Actions based on ethics and accountability
- Empowering the team
- The ability to apply the process within an ambiguous environment

The final link to successfully executing programs is the ability to senior leadership to create an environment conducive to the success of these complex endeavors. [2, 4, 17]

III. Integration

Programs use internal and external suppliers, and as such require a significant amount of integration activity. Integration offers a level of risk that is significantly higher than that experienced in managing projects.

One source of the increased risk originates from the involvement of external organizations in the development and delivery of the product. The increased complexity introduces a new set of problems that do not exist in smaller, less complex projects, thereby increasing the impact of risk and rate of failure. [25]

The organizational complexity of a program, and breadth of the impact on the organization from a negative outcome, also increases the risk of failure. It is not just the issue that each external supplier has their own product development process; issues and change will arise from a multitude of sources, most of which cannot be predicted with accuracy.

For example, the supplier:

- Is subject to internal performance issues that may impact their ability to develop and deliver as promised
- May be working with additional suppliers, further increasing risk
- May have internally generated constraints, such as staffing restrictions and targets on profit margin
- Will most certainly have relationship and leadership issues within their own organization

The involvement of external suppliers will impact the ability to develop metrics that are indicative and predictive of program success, and certainly provides another

argument to deploy a different set of metrics for programs. For example, it is difficult to predict the occurrence of internal supplier issues that might impact their ability to effectively deliver, and equally difficult to measure the impact of such an occurrence on the program's performance.

The pre-program engagement evaluation and selection process involves detailing the expectations of the supplier's willingness to comply with fundamental requirements necessary for successful integration. These expectations include [12, 14, 21, 26] acceptance and buy-in to the process of allowing suppliers to use their own development cycle while:

- Integrating components of the supplier's development cycle into an overall program plan managed by the home organization
- Agreeing to the components of the supplier plan to be linked with milestones in the home organization's plan
- Accepting a program status review process that will be rigorously adhered to
- Accepting, and rigorously adhering to, a formal change control process

IV. Process Insufficiency

Developing an effective systems integration process is a necessary but not sufficient condition to enable program success. [1, 5, 12]

The British Computer Society (BCS) has done an extensive amount of work on this topic. Their evidence suggests that the culture within an organization is often such that leadership, stakeholder and risk management issues are not factored into projects. In many instances these issues cannot be written down for political reasons and are rarely discussed openly. [22]

One BCS study on the true causes of project failure determined that one of the major weaknesses uncovered was the total reliance placed on project and program methodologies. Processes are far from enough to cover the complexity and human aspects of many large projects subject to multiple stakeholders, resource and ethical constraints. [22]

This would give credence to the idea that a Program Manager's ability to succeed is dependent more on their ability to exercise leadership type skills than it is to think of their role as a process policeperson. A Program Manager's ability to identify, and assist in resolving, issues arising from insufficiencies in the supplier's organization will be dependent upon their ability to create a safe environment that fosters trust and a willingness to be as open and honest as possible.

A study, published in The Journal of Product Innovation Management, [16] was undertaken regarding the use of lean methods to enable integration. The outcome of that study suggests that, regardless of what approach is used (lean or not), successful integration is dependent upon items such as:

- The level of trust
- A previous and trusted relationship with the external suppliers
- Ongoing and unrelenting communication

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- A detailed pre-program agreement, and a commitment to that agreement, from the external suppliers involved in the process
- Agreed to objectives, and metrics that accurately assess those objectives

V. Project vs. Program Metrics

Since projects are of a limited duration and complexity, metrics that support projects are of a limited breadth. Project metrics typically revolve around the three constraints of project management; cost, time and requirements. As such, they are likely to be reasonably indicative and predictive of project success, and are said to measure internal value. They are fairly standard, and include items such as resource utilization, cycle time, cost, quality and schedule tracking.

As stated, Programs impact strategy and are much more visible to senior leadership. Thus, the metrics are typically at a higher level and reflect the potential impact on the customer's business. The measures are customer driven and business and/or strategy driven.

Program metrics are said to measure external value. Different program metrics are necessary if the metrics are to be both indicative and predictive of success. Examples of program metrics might include customer satisfaction, schedule/delivery of the final product(s), quality, the ability to change to reflect rapidly fluctuating business conditions, and the program issue turnover rate. The components of program metrics incorporate measures of current and expected business value. [9, 16, 25, 26]

V.A. Rationalizing Project and Program Metrics

Whatever the metrics used, the outcome predicted by the sum of the project metrics must be consistent with the outcome predicted by the program metrics.

For example, assume that the project metrics indicate that each project was delivered on time, within budget, and met requirements. Further assume that once delivered, the program was perceived as a failure by the customer.

This can occur if the program operates in an environment focused on limiting change; in this climate a business change may not be comprehended by a change in requirements or in the configuration of the final product, thereby diminishing the value of the delivery. Perceived program failure may also occur if the program does not comprehend the need for organizational change management; if customer processes aren't changed to reflect the new product, the customers are less likely to perceive the program as a success. [17, 19]

VI. Leading in a World of Change

Business exists in a world in which change is the one constant. The very nature of business is changing, sometimes overnight. The product development process, and the solutions necessary to support business environment, must be equally nimble. This equates to embracing change. [7, 12, 15]

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The typical project management mindset is to exercise the following steps:

- Detail the requirements from the customer (knowing they probably will not be able to accurately or adequately identify them)
- Freeze the requirements
- Implement change control (perhaps better termed change restrictions)
- Deploy metrics based on adherence to the original cost, timing and requirements, thus predicting success only if there is minimal change

The project has created a self fulfilling prophecy; organizations force the outcome to be as initially planned. The metrics become more of an indicator of adherence to the process. Simply following a development process is not a sufficient condition to deliver a product that will delight the customer. [12]

At this point is important to again differentiate between project and programs. Because projects are short-term in nature, it seems more reasonable to follow the above process, although the risk still exists that the work product that is delivered will not serve the customer.

We should be diligent in pursuing measurements of our ability to deliver a product that adds value to the customer's business. This becomes a compelling argument to consider a different set of metrics for programs, avoiding the trap of using metrics that encourage what becomes a less than desirable outcome.

Leading a project through an environment that is faced with ongoing and increasing levels of change requires a leadership mindset that the process cannot begin to address.

VII. Integrating Best Practices and Leadership

The journey from the current state to program greatness involves integrating project practices and leadership. The ability of the Program Manager and the team to demonstrate leadership behaviors reflecting Leadership Skills is critical to the success of any program. [1, 5, 12, 15]

The research referenced in this document, as well as others not included, indicates little evidence that the issues of project failure have been fully addressed within IT project management. Developing an alternative methodology for project management founded on leadership competencies, stakeholder and risk management should lead to a better understanding of how management may enable the successful delivery of information systems projects. [22]

The graphic on the following pages maps of the execution of project management practices with leadership skills necessary to effectively execute those practices.

The successful application of the practices will always involve some application of appropriate leadership skills. For example, consider supplier relations. Although the project management practice does outline a process, the successful application of

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this practice clearly requires mature leadership and relationship management skills to effectively develop and maintain the supplier relationship.

LEADERSHIP PRACTICES

Integration Collaboration	Change Leadership	
Relationship Management	Governance	
Organizational Change & Transition Mgmt		
Supplier Relations	Quality Leadership	
Communication		
Change, Risk & Issue Mgmt		
Scope Management		
Requirements		
Configuration Management		
Common Process		

PROJECT MANAGEMENT PRACTICES

Figure VII.1 Mapping the Importance of Leadership Skills

VIII. Conclusion

It is time to step back, comprehend today's brave new world, and ensure we are refocused on business value and metrics that accurately measure the business value we are providing to the customer.

There are some simple guidelines that can aid in the development of an effective systems integration process. For example, the home organization (program owner) should guide the program plan using their own methodology. The suppliers should be allowed to use their particular product development process, while agreeing to reporting progress based on milestones that are a part of the home organization's development process.

It should be understood that regardless of what guidelines are used, any process is simply a "means to the end". "Issues that arise in supplier integration include tier structure, degree of responsibility for design, specific responsibilities in the requirement setting process, when to involve suppliers in the process, inter-company communication, intellectual property agreements, supplier membership on the

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project team, and alignment of organizational objectives with regard to outcomes".
[16]

Any process must be recognized for what it is, a guideline for executing the steps necessary to generate information to help guide the program. Ensure that the process comprehends the substantial risk that is inherent in any program, in particular that risk that is brought about by the inclusion of external organizations.

Other "means to the end":

- Ensure alignment with business objectives and Portfolio Management
- Include appropriate metrics that are indicative and predictive of program success
- Ensure that metrics accurately reflecting the value provided in support of the organization's business objectives
- Comprehend the brave new world, the rapid rate of change, and don't fear new approaches such as using lean and/or agile techniques
- Understand the limitations that are inherent in any process
- Identify and exercise the leadership competencies necessary to fill in the void between process and actual execution
- Apply the leadership skills in key risk areas to mitigate the potential impact
- Enable a continuous learning environment

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