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Impact of Project Managers on the Successful Completion of Projects: a Value Addition or Replication.

Gail McDaniel¹

¹School of Business, American International Theism University, Florida, USA
Email: gmcdan3@my.wgu.edu

Abstract: *This study delves into the pivotal role of project managers in shaping the successful completion of projects. It explores whether their contributions represent value addition or replication within an organizational context. Drawing distinctions between project managers and functional managers, the research underscores their unique roles, focusing on temporary initiatives and cross-functional leadership for project managers and ongoing operations within specific business functions for functional managers. The contrasting career paths associated with these roles highlight the diverse experiences gained by project managers, positioning them for senior leadership and the specialized expertise developed by functional managers.*

The research also examines the impact of project-driven organizational structures on enhancing project management capabilities. Project-driven organizations cultivate a culture that values and rewards successful project outcomes by prioritizing project management personnel, standardized methodologies, and flexible resource allocation. The advantages of this structure, including increased accountability, motivation, and strategic alignment, make it particularly advantageous for organizations heavily reliant on projects in dynamic, fast-paced industries.

Tracing the evolution of project management from its formative era (1945-2003), the study highlights its transformation from a nascent discipline driven by the need for centralized control in complex initiatives within the defense, aerospace, and construction industries to an essential competency integral to organizational success. Over time, incorporating methodologies, tools, and certifications underscores its critical role in contemporary business processes.

Furthermore, the research emphasizes the importance of understanding the distinctions between projects, programs, and systems for effective project management. Projects, as temporary endeavors with defined objectives, and programs, as collections of related projects managed for overall benefits, are explored within systems thinking. Adopting a systems thinking approach, which views projects as complex systems within a larger organizational context, enhances the effectiveness of managing both projects and programs.

The study scrutinizes traditional, projectized, and matrix organizational structures, revealing trade-offs between stability and project autonomy. Traditional structures, focusing on functional departments, potentially impede cross-functional collaboration, while projectized structures prioritize project teams at the risk of resource duplication. A hybrid matrix structure, balancing these approaches based on project variability, strategic priorities, and the need for lasting functional competencies emerges as a prevalent choice for organizations.

Finally, the research delves into matrix organizational structures to harmonize functional and projectized models. It explores variations in matrix structures, challenges faced, and strategies organizations employ to address resource allocation conflicts, divided loyalties, and power struggles. Emphasizing the delicate balance required for success, the study concludes that the role of project managers remains crucial in navigating the complexities of project management across diverse organizational structures, influencing project success and, consequently, the organization's overall success (Kerzner, 2009).

1. Introduction

The role of a project manager is to oversee the planning and execution of specific projects, while functional managers oversee ongoing operations within a particular business function or department. Project managers are focused on achieving defined goals and deliverables for a project within a set timeframe, often coordinating cross-functional teams. Functional managers are responsible for continuously managing people and processes within a business function, optimizing operations and workflows (What Is a Functional Manager? (with Duties and Skills), The scope and duration differ between the two roles, with project managers having a more defined, short-term scope than functional managers' broader ongoing responsibilities (Menzies,2023). The key differences between a project manager and a functional manager are (FunctionalManager vs. Project Manager: What Are the Differences? 2022):

1.1. Scope of Responsibility:

A project manager is responsible for a specific, temporary endeavor with defined objectives, timelines, and budgets. Their role is to plan, execute, monitor, and close projects.

A functional manager oversees an ongoing area of an organization, such as finance, marketing, or engineering. Their focus is on optimizing processes and performance within their department.

1.2. Authority:

Project managers are given authority over project resources and team members but have limited direct authority. They lead through influence and matrix management rather than direct line authority.

Functional managers have direct authority over their departments and staff. They decide on their area's priorities, hiring, performance management, etc.

1.3. Orientation:

Project managers take a cross-functional view to integrate work across departments. They are focused on the project lifecycle and customer requirements.

Functional managers have a vertical view within their specialty area. Their concern is ongoing operations and operational performance.

1.4. Career path:

The project manager role provides experience across functions and industries. It can prepare individuals to take on more senior leadership roles.

Functional management roles provide depth in a discipline, which can lead to senior functional leadership (e.g., VP of Engineering).

In summary, project managers have cross-functional leadership focused on completing temporary initiatives, while functional managers have specialized management responsibilities for ongoing departments and operations (Functional Manager vs. Project Manager, n.d.). Both roles require leadership but have different orientations and scopes.

2. Leveraging Project-Driven Organizations for Effective Project Management and Delivery.

A project-driven organizational structure centers all operations on effective project delivery as the primary means of achieving business objectives and generating value. With dedicated project management personnel and standardized methodologies in place, project-driven organizations can improve coordination, consistency, and efficiency across entire portfolios of projects. Their organizational design, systems, and processes are strategically optimized for flexibility and responsiveness in allocating resources to projects based on priorities and changing needs. By focusing the organization's competencies, performance metrics, career advancement, and rewards on robust project management, project-driven organizations can significantly enhance their capabilities for on-time, on-budget delivery of projects (Eby, 2021).

This concentrated focus and institutionalized approach towards managing projects allows project-driven organizations to rapidly adapt to changing business environments through disciplined yet agile project execution. With an entire company culture oriented around projects as the core work and value creation units, project-driven structures foster greater accountability, motivation, strategic alignment, and economies of expertise for project success across the enterprise. The multitude of advantages stemming from concentrating specialized expertise, assets, operations, and

human capital on project execution make the project-driven model highly beneficial for organizations that rely extensively on projects for accomplishing important work and thriving in fast-paced, competitive industries. Instituting project-driven principles holistically helps unlock an organization's fullest potential for outstanding project outcomes (Nasrudin, 2022).

A project-driven organization exhibits distinctive characteristics that shape its operational framework. In such an organization, work primarily revolves around projects, each possessing well-defined objectives, scopes, timelines, budgets, and dedicated project teams. Projects are the primary mode of accomplishing tasks, and the organizational structure is strategically designed to facilitate efficient project execution. This structure includes dedicated project managers, project management offices, and established systems for managing various projects simultaneously (What Are Project Management Organization Structures?

Resource allocation within a project-driven organization is prioritized based on project requirements, encompassing human resources, equipment, and facilities. The organization emphasizes sharing and optimizing these resources across the entire portfolio of projects. A continuous flow of projects characterizes the work environment, allowing employees to transition between ongoing projects seamlessly as they start and conclude. This dynamic creates a sense of identification among employees with specific projects and project teams.

Performance measurement and rewards within a project-driven organization are intricately linked to the success of individual projects. Project management is not merely a task but is recognized as a core competency and a viable career path within the organizational structure.

One of the notable advantages of a project-driven organizational structure lies in its ability to focus efforts on clearly defined project objectives and deliverables. The organization can deploy resources across various projects, fostering accountability and ownership for project outcomes. Coordination of cross-functional activities is achieved through dedicated project teams, enabling rapid responses to changing business environments by initiating and prioritizing projects. The organization thrives on developing robust project management competencies and methods, continually learning and improving through project retrospectives. Tracking work through projects facilitates effective capacity planning and optimization, ultimately motivating employees through active project participation, a sense of ownership, and associated rewards.

In summary, a project-driven structure allows organizations to achieve agility in executing complex, strategic work through disciplined project management processes and focusing on project delivery. It is advantageous for organizations that must manage many projects and thrive in fast-changing environments.

3. The Formative Era: Project Management Emerges as a Discipline (1945-2003)

Modern project management originated after World War II when the United States government required better methods for managing complex initiatives like the Manhattan Project, space programs, and new aircraft development. These defense and aerospace endeavors' immense scale,

budgets, and intricacy necessitated centralized control under individual managers who could integrate cross-functional efforts. Thus, project management was pioneered to deliver complete oversight and accountability (Management Library, 2022).

1945-1960: In the years following World War II until 1960, project management originated primarily within the aerospace, defense, and construction industries. The US Department of Defense and NASA mandated project management for major programs like the B-52 bomber, Minuteman missile, and Polaris submarine due to the need for centralized control, coordination, and accountability on incredibly complex initiatives. While project management helped address rampant issues like cost overruns, delays, and poor customer responsiveness, it was still a fledgling discipline facing skepticism in many sectors. Outside of defense, space, and construction, most industries used informal methods for managing projects during this pioneering period (Belyh, 2022).

1960-1985: From 1960 to 1985, project management adoption expanded beyond its roots as more industries realized the benefits of formal project planning and control. Books and academic research emerged explaining core project management principles, and companies increasingly appointed project managers and implemented techniques like the Program Evaluation and Review Technique (PERT) to improve oversight of schedules, resources, and costs across projects. Matrix organizational structures also took hold to balance functional versus project needs. However, some limitations around authority, resource conflicts, and added overhead became apparent, leading to resistance and implementation challenges. While project management gained footing during this period, it still needed to be universally embraced (Kwak, 2003) (Azzopardi, n.d.).

1985-2003: By the mid-1980s, project management had become widely accepted as an essential discipline rather than an optional approach. Drivers like globalization, rapid technological change, and intensifying competition made structured project management crucial for organizations to deliver complex initiatives quickly and efficiently. Project management methodologies, software tools, certifications, and career paths matured during this period. Leading-edge concepts around agile, maturity models, and strategic alignment became integrated with project management. The discipline became a versatile, strategic competency deployed across industries to optimize project results and anchor them to business objectives. Project management transformed from a niche capability to a critical core competency for organizational success (Management Library, 2022).

In summary, project management grew from an early experimental stage in the 1940s-60s to an essential business process by the 1990s-2000s, driven by technology changes, globalization, and the need for organizations to be agile and efficient. It evolved from informal techniques to standardized methodologies supported by software tools and training.

4. Unpacking the Project Management Lexicon: Projects, Programs, and Systems.

Navigating the complex landscape of project management involves understanding the distinctions between projects, programs, and systems. In this exploration, we delve into the definitions and interrelationships of these critical concepts to shed light on how they contribute to successful endeavors.

A **project** is a temporary endeavor to create a unique product, service, or result. Projects have defined objectives, scopes, timelines, budgets, resources, and deliverables to be completed within certain specifications. Projects are distinct efforts with a beginning and an end to meet particular goals (Association for Project Management, 2019).

While projects are standalone initiatives, multiple associated projects can be grouped into more extensive **programs**. A program is a collection of related projects managed in a coordinated way to gain benefits and strategic alignment not available from working on them individually. Programs usually have broader scopes, longer time horizons, larger budgets, and more significant impacts than singular projects. Managing interdependent projects as a program allows improved optimization, oversight, and economies of scale (Harrin, 2022).

Both projects and programs can be managed more effectively using a systems thinking approach. System thinking focuses on how project components interact with and influence each other within the larger system context. It views projects as complex systems rather than isolated initiatives. System thinking examines the underlying connections, root causes of issues, and unintended consequences that emerge from dynamic system interactions. By adopting this holistic perspective, project managers can make decisions and adaptations while considering the whole system, leading to improved outcomes (Siles, 2022).

In summary, a project is a temporary endeavor with a defined scope and end date, a program is a group of related projects providing overall benefits, and system thinking is a big-picture approach considering how different projects interact as part of larger systems and strategies. Let me know if you need any clarification or have additional questions!

5. Comparing Traditional and Projected Organizational Structures in Project Management: Finding the Right Balance for Success.

The traditional or classical organizational structure is focused on functional departments, with project execution being secondary. It provides stability but can impede cross-functional collaboration on projects. In contrast, the pure product or project structure is organized around project teams as the primary units, minimizing functional influence. While optimized for project execution, project organizations can need help with developing enduring available expertise (Organ, 2023).

Traditional structures maintain knowledge and standards within departments but make projects dependent on functional priorities. Projected structures enable project autonomy but may duplicate resources across teams. Traditional models are slower to shift between projects, while projected models allow more flexibility in allocating talent. Overall, neither structure is inherently better for all project environments. The optimal approach depends on factors like project variability, strategic priorities, and the need for lasting functional competencies. Most organizations adopt a hybrid matrix structure to balance the benefits of both functional and project-driven models (Usifo, 2023).

5.1. Traditional (Classical) Organization - The conventional or classical model is well-suited for mass production activities within established specifications in organizational structures. This structure maintains a hierarchical approach, where each employee reports to a single manager, offering a straightforward chain of command. It ensures continuity in functional disciplines, providing clear policies, procedures, and lines of responsibility. Moreover, this model allows flexibility in labor utilization across multiple projects. However, drawbacks include the absence of a single point of accountability, resulting in slower response times to customer needs and challenges in pinpointing responsibility in case of issues (Indeed, 2022).

5.2. Pure Product (projected) Organization - On the other hand, the refined product or projected organizational structure places complete line authority over projects in the hands of a single project manager. Participants work directly for and report to this project manager, fostering a dedicated focus on the project's goals. This structure allows for tailoring policies and procedures to each project's requirements, promoting loyalty to the project and maintaining high morale among team members. Additionally, it enables rapid response times and flexibility in making trade-offs to meet project objectives. However, drawbacks include the high cost of duplication across projects, reduced sharing of resources, and a potential weakening of the perpetuation of technology advancements due to a more project-centric focus (Wells, 2023).

In summary, the traditional structure is better suited for routine, repetitive work where efficient utilization of resources is critical. The projected structure is more appropriate for large, complex projects where apparent authority, accountability, and flexibility are needed to meet tight objectives. The projected form provides a stronger project focus but at higher overhead costs. The choice depends on the types of projects and the company's priorities.

6. Navigating Matrix Organizational Structures: Balancing Act between Functionality and Project Execution

In the realm of organizational structures, the matrix approach seeks to harmonize the strengths of both functional and projected models. This intricate system introduces dual reporting relationships, shared authority, and unique challenges and variations. Let's explore the nuances of matrix structures and how organizations address the delicate balance between project and functional responsibilities (Indeed, 2020).

6.1. Understanding Matrix Organizations: The matrix structure integrates functional managers, who are responsible for expertise and resources, with project managers, who are accountable for project objectives. Employees report to functional and project managers, leading to a shared authority dynamic (Role of Matrix Management in Organizational Structure, 2013).

6.2. Variations in Matrix Structures: Functional managers retain the most authority in a Weak Matrix, and employees primarily report to them. A Balanced Matrix sees authority more evenly distributed between functional and project managers, requiring employees to balance competing priorities. Project managers wield more authority in a Strong Matrix, and employees primarily report to them (Pollack, 2022).

6.3. Challenges Faced by Matrix Organizations: One significant challenge is Resource Allocation, where negotiation for shared resources, such as skilled employees, can lead to conflicts between project and functional managers. Divided Loyalties emerge as employees must navigate competing demands from functional and project managers, requiring careful prioritization. The ambiguity surrounding decision rights results in Unclear Authority, leading to conflicts over who holds the ultimate authority. Additionally, the focus on project delivery may hinder the development of Technical Excellence within the organization (Davis & Lawrence, 2014).

6.4. Addressing Challenges in Matrix Structures: Matrix organizations employ various strategies to mitigate challenges. Senior Management Oversight intervenes to resolve serious conflicts, while Clear Policies and Procedures clarify decision authority to reduce ambiguity. Dual Reporting balances priorities through dual reporting relationships. The Rotation of Assignments develops broad skills by rotating employees across different functions. Aligned Incentives ensure that incentives align with project and functional goals (Gupta, 2021).

6.5. Striking the Balance: While challenging to implement, a well-executed matrix structure endeavors to leverage the advantages of functional excellence and project execution focus. Effective leadership, transparent processes, and continuous effort are essential to maintaining equilibrium and addressing resource conflicts, divided loyalties, and power struggles (Louise Gaille, 2020).

In summary, the matrix organizational structure is dynamic, offering the potential for the best of both worlds. With careful navigation and strategic management, organizations can harness the strengths of both functional and project-oriented models within a single cohesive framework.

7. Conclusion

In conclusion, the impact of project managers on the successful completion of projects is a critical factor in determining whether their role adds value or merely replicates existing organizational functions. Project and functional managers have distinct roles, focusing on temporary initiatives and cross-functional leadership, while functional managers oversee ongoing operations within specific business functions. The career paths associated with these roles also differ, with project managers gaining diverse experience across functions, preparing them for senior leadership, and functional managers developing depth in a specific discipline.

Project-driven organizations, designed around effective project delivery, offer a strategic approach to enhancing project management capabilities. These organizations prioritize project management personnel, standardized methodologies, and flexible resource allocation, fostering a culture that values and rewards successful project outcomes. The advantages of a project-driven structure include increased accountability, motivation, and strategic alignment, making it particularly beneficial for organizations relying heavily on projects in fast-paced industries.

The formative era of project management, spanning from 1945 to 2003, witnessed the evolution of project management from a nascent discipline to an essential business process. Driven by the need for centralized control in complex initiatives, project management emerged in the defense, aerospace, and construction industries. Over time, it gained acceptance, becoming a

critical competency for organizational success, with methodologies, tools, and certifications becoming integral components.

Understanding the distinctions between projects, programs, and systems is crucial for effective project management. Projects are temporary endeavors with defined objectives, while programs encompass related projects managed for overall benefits. Adopting a system thinking approach, considering projects as complex systems within a larger context, enhances the effectiveness of managing both projects and programs.

Comparing traditional and projected organizational structures reveals trade-offs between stability and project autonomy. Traditional structures focus on functional departments, ensuring continuity but potentially impeding cross-functional collaboration. Projected structures prioritize project teams, offering flexibility but risking duplication of resources. Many organizations adopt a hybrid matrix structure to balance these approaches based on project variability, strategic priorities, and the need for lasting functional competencies.

Matrix organizational structures seek to combine functional and projected models and introduce dual reporting relationships and shared authority. Variations in matrix structures include weak, balanced, and strong matrices, each with challenges such as resource allocation conflicts and divided loyalties. Addressing these challenges requires strategies like senior management oversight, transparent policies, dual reporting, rotation of assignments, and aligned incentives. Striking the right balance in a matrix structure is challenging but offers the potential to leverage the strengths of both functional excellence and project execution focus.

In essence, the role of project managers is crucial in navigating the complexities of project management, whether within traditional, projected, or matrix organizational structures. Their ability to provide effective leadership, foster collaboration, and adapt to changing environments significantly influences the success of projects and, consequently, the overall success of an organization.

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