

Project Management Practices: Version 1.0 vs 2.0

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ABSTRACT

Project Management 1.0 techniques have been proven effective during early 1970's for managing large projects in the commercial industries like construction & pharmaceuticals when the economy and technology were stable (Raymond E. Levitt (2011)). However as the technology rapidly advanced, these practices and methodologies seem to be ineffective. PM 2.0 methodology was evolved to overcome some limitations and challenges faced with PM 1.0 practices. The tools and methodologies with PM 2.0 are structured more to adapt the agility of environments and technologies. The paper reviews the evolution of PM 1.0 and PM 2.0 and discusses its strengths and weaknesses.

KEYWORDS:

Project Management, PM 1.0, PM 2.0, agile, governance, Project Management practices

INTRODUCTION

The role of project manager has evolved in the recent past. Traditionally, a project manager strictly served the purpose of coordinating the execution of easy-to-understand activities typically availed in the form of a worksheet at the start of the project. The project manager would embrace an agenda consisting of tasks deliverable within set timelines. As such, the traditional manager never conducted project due diligence, participated in the process of project approval or confirmation of the strategic value of the items contained in the worksheet just to justify undertaking a project (Konstantopoulos, 2010). Therefore, the key role of a traditional project manager was to deliver the items found in the checklist within the set time.

Today, the role of a project manager has changed. Project managers today must holistically diagnose the prevailing internal and external environments of the organization and present facts to justify the need for a project before its initiation. Most often, project managers today are engaged in the business justification for carrying out a project, proposition of solutions that will meet business needs and determination of the executable tasks needed to create the proposed product.

The already established project management practices are referred to as PM 1.0 and the new management practice age referred to as PM 2.0. Advances in technology and flow of information have proved that PM 1.0 is ineffective methodology to manage most projects in the modern age. This has led to the development of new project management ways, PM 2.0, which centers on new project management techniques, good project governance, increased engagement with project stakeholders, and other important information reporting by means of metrics, key

performance indicators (KPIs) and dashboards (Microsoft Inc., n.d). This paper will compare and contrast PM 1.0 and PM 2.0 practices, and thereafter suggest the way forward.

PM 1.0

The traditional project management practices were rooted in the aerospace, defense and construction industries. These practices were ideal for large projects with known and predictable risks, assumptions and technology that would not allow changes throughout the project lifecycle. However, most companies, projects that would meet these criteria represented only a small fraction of the projects that a company required to continue running (Microsoft Inc., n.d).

Currently, project management approach is being applied to a broad variety of projects in all business fields where politics, risks, value, enterprise image and reputation, sustainability and quality are treated as being more essential to the organization than time, cost and scope limitations in PM 1.0 (Microsoft Inc., n.d). As such, PM 1.0 has become ineffective for managing many projects today.

According to the Microsoft Inc., PM 1.0 is built on the following project tasks:

1. Project identification, evaluation and approval without participation by project managers
2. Project planning by a centralized planning team that may or may not involve the project manager
3. Development of project baselines based on the assumption that the planners have the capacity to come up with correct baselines and plans that do not need changes throughout the project execution. However, this assumption may not hold true because the planners may lack full comprehensive understanding of the project complexities.
4. Assigning team members to the project and expecting them to perform as per the plan in which they took no part to develop
5. Development and approval of baselines by top management without participation of the project team. The baselines are assumed not to change during the project execution.
6. Deviances from the baselines are treated as variances that should be corrected to keep the project within the initial plan
7. The success of a project is regarded as meeting the baselines. Resources and tasks are continuously adjusted to maintain the baselines
8. When changes to project scope are inescapable, only those that changes that do not change baselines extensively are approved.

Strengths of PM 1.0

Although many people may undervalue traditional project management strategies, PM 1.0 has two strengths. First, PM 1.0 is disciplined. PM 1.0 discipline forces the project manager to come up with detailed specifications, capturing all the project requirements and deliverables through documentation, and complete rigorous testing. The second strength of PM 1.0 is that many of

projects today share considerably many predictable contexts and assumptions that may not change throughout the project lifecycle. Given that man has managed projects since his existence, the similarity of the projects is a considerable strength in PM 1.0.

Weaknesses of PM 1.0

PM 1.0 has several weaknesses that make it unfit for managing projects in the modern age. First, PM 1.0 is not optimized for agility. Due to the high uncertainty and complexity in most today's projects, lack of agile project management risks project success. Project managers need to maintain high agility to allow adjustments in case of changes to scope during project execution. The second weakness of PM 1.0 is that it does not engage all the available knowledge. The project managers are given very little authority to make decisions in PM 1.0. In this project management methodology, it is assumed that senior executives house all the knowledge. As such, all the key decisions are made by the firm's executives. However, some project team members have brilliant ideas. Contributions from other project stakeholders are critical to the success of the project.

The last weakness of PM 1.0 is that it is based on the notion that one size fits all, which in practice serves as the basis for many pitfalls, for example, project status reporting alone consumes approximately 25% of the project budget (Microsoft Inc., n.d). Project management 1.0 does not fully address the subjective scopes of all projects and should be avoided.

With PM 1.0, project managers are given very little authority to make decisions. The executives feared that project managers could make decisions that would require senior managers. All the key decisions are made by the firm's executives. This management methodology was based on the notion that one size fits all. PM 1.0 had significant pitfalls, for example, project status reporting alone consumed approximately 25% of the project budget (Microsoft Inc., n.d). Shortcomings of PM 1.0 has proved ineffective for managing most projects today, necessitating development of new project management practices, PM 2.0.

PM 2.0

The concept for PM 2.0 solely developed from project managers involved in software development, where adding version numbers to project management is necessary because of the use of different tools and techniques needed to fulfill the needs of different projects. Over the years, studies have highlighted the causes of failures of IT projects. The most common failures of IT projects include lack of user involvement in the project, poor IT governance and lack of joint decision making (Microsoft Inc., n.d).

Failures of IT projects have given rise to distributed collaboration on IT projects, from which scholars have derived PM 2.0 formula;

PM 2.0 = pm 1.0 + distributed collaboration (Microsoft Inc., n.d).

Deriving from the formula, PM 2.0 is constituted by the traditional project management practices, PM 1.0 and distributed collaboration. According to Microsoft, distributed collaboration is compelled by open communication unlike in the traditional project management. PM 1.0 favors hierarchical decision making and centralized reporting. In contrast to this, PM 2.0 emphasizes access to information by all the project team members and other stakeholders, including those persons who take part in the project governance committee (Microsoft Inc., n.d).

The increased collaboration among the project team and other stakeholders can explain the success of most projects today. First, active engagement of the project owner and users in the project development helps the development team fully understand the requirements of the new solution. For IT projects, for example, involvement of the system owners and the end users of the system help the project manager determine the functional and non-functional requirements of the new system. Understanding the functional and non-functional requirements of the system is critical to the developing a solution that will fully address the organizational needs. Secondly, active engagement of the stakeholders in the project is important because the project team can seek clarifications from the project owners at any stage of the product development. After gathering the requirements of the proposed system and designing the system, the project manager can involve the stakeholders to determine if the system will meet their requirements and suggest more improvements if not. Again, before the final product is fully released for use, the project manager can involve the end users to determine if the new system is working as was planned. To perform this test, the system is deployed in alpha and beta forms, allowing the project managers to make adjustments to the system from the feedback obtained from the end users.

The third importance of PM 2.0 relates to project reporting. PM 2.0 avoids formalized project reporting as it can be very expensive in some projects. Instead, PM 2.0 centralizes majorly on project management metrics, KPIs and dashboard reporting systems (Microsoft n.d). The increased collaboration in PM 2.0 makes it more of a socialized project management than a centralized project management.

The other benefit derived from increased collaboration of project team and product stakeholders is agility, whose benefits in the ever increasing complex world cannot be underscored. By observation, agile project management is the today's major user of PM 2.0 practices. A typical example of agile project management approach is the scrum framework. Agile project management approaches allows projects to follow an incremental development, allowing project managers to make adjustments as needs emerge during the project lifecycle. Since the project is incremental, the project team is able to address emerging needs of the client during the product development lifecycle. As such, PM 2.0 ensures agile risk management risk, which is critical in projects with uncertain internal and external environments.

Strengths of PM 2.0

PM 2.0 has four main strengths that make it desirable in managing today's projects. First, PM 2.0 is agile. With the high complexity of today's projects as well as the high uncertainty facing projects today, use of agile project management is critical. Using agile product development approaches such as scrum and iterations, project managers are able to respond to changes to

scope and emerging needs throughout the project lifecycle. As such, it is easier to manage risks with PM 2.0 than PM 1.0. The second strength of PM 2.0 is increased understanding of the project requirements. In PM 2.0, all the stakeholders of the project are actively engaged in the process. Through the involvement of the project owners, the development team is able to clearly understand the requirements of the system and adjust the system to meet customer's specifications in case of additional needs during the project execution. Again, PM 2.0 benefits from collaborative knowledge from the team members unlike in PM 1.0.

The other strength of PM 2.0 relates to project metrics. Good metrics management programs are one of the defining features of PM 2.0 practices. Each of the project team members has metrics at their fingertips, allowing rapid sharing of metric information. With good metrics, project governance makes decisions based on evidence, which increases the chances for project success. Metrics help project managers to effectively manage time, cost and scope constraints among other many project constraints. Good metrics are important in today's projects because project stakeholders can focus on and agree to the right target and business alignment with ease, evaluate the impact of tradeoffs in case a change in direction is necessary, and have an accurate picture of the project status presently and possibly in the future (Kelzner, 2015).

The forth strength of PM 2.0 is the use of dashboards. With the use of dashboards, project managers can design customized dashboards so as to take care of each stakeholder's needs. The dashboards reduce the time and cost of metric reporting because there is no much paperwork. Again, dashboards reduce the time for consensus decision making (Kelzner, 2015).

Weaknesses of PM 2.0

Though PM 2.0 has is considered the more powerful in managing projects than PM 1.0, it has received critique. Some scholars argue that PM 2.0 is merely a variation of PM 1.0 and not all projects using PM 2.0 will have all the features of PM 2.0 as illustrated in table 1. The implication of this is that the nature of the project will determine what practices work best for a particular project. Therefore, project managers need to be given the freedom to select elements that work best for their project regardless of it being a PM 1.0 or PM 2.0 element.

Another weakness of PM 2.0 is that it is not fit for small projects (Microsoft Inc., n.d). PM 2.0 is more of a streamlined combination of many practices found in PM 1.0 that are employed to speed up the development process. The streamlining is largely attributable to advances in technology. In this regard, project success would be achieved when all the project team members used the same technological tools (Microsoft Inc., n.d).

Differences between PM 1.0 and PM 2.0

PM 1.0 and PM 2.0 differ significantly. The differences between the two are summarized in the table below.

Factor	PM 1.0	PM 2.0
Project approval	Minimal involvement of project manager	project manager fully engaged
Types of projects	Operational	Operational and strategic projects
Selection of sponsor criteria	Selected from the funding enterprise	Business knowledge
Overall project sponsorship	Individual sponsorship	Committee governance
Planning	centralized	Decentralized
project requirements	well-defined	Emerging and flexible
WBS development	Top down	Bottom-up and evolving
Number of constraints	Time, cost and scope	competing constraints
Definition of success	cost, time and scope	Business value created
Changes to scope	No changes	Often continuous
Flow of activities	Flows in series	Flows in parallel
Flexibility of project	Restrained	Extensive
Control	Centralized	Decentralized
Leadership	Authoritative	Collaborative
Communication	Localized	Everywhere
Access to information	Localized and restricted	live, readily access and globalized
Amount of documentation	widespread	minimal
Communication media	Reports	Dashboards
Frequency of metrics measurement	Intermittently	Continuously
Role of software	As needed	Compulsory
Complexity of software tool	Highly complex tools	Simple-to-use tools
Type of contract	Enterprise-fixed-price	Cost-reimbursable

Responsibility for success	responsibility of the project manager	Responsibility of the team
Decision making	by senior enterprise managers	by project team
Project health checks	Optional	Compulsory
Type of project team	Co-located	Virtual or distributed
Access to stakeholders	At selected intervals	Throughout the project lifecycle
Stakeholder experience with project management	Optional	Compulsory
Client involvement	Optional	Compulsory
Organizational project management maturity	Optional	Compulsory

Table 1: *The differences between PM 1.0 and PM 2.0.* (Microsoft Inc., n d)

The way forward

Though PM 2.0 has brought considerable success on small projects, the challenge remains as to whether PM 1.0 is appropriate for large and complex projects. Though there lacks a compelling evidence to rule out this issue, it is clear that PM 1.0 practices are inadequate for managing the large and complex projects. PM 1.0 methodology is fit for projects whose requirements and risks can be identified before initiation. The reason behind this presupposition is that such the scopes of such projects do not change during the project execution. However, with the world systems becoming increasingly complex and uncertain, today's projects are often complex and their scopes destined to change during their development cycles. As such, PM 1.0 principles are inappropriate for complex projects. Such projects require agile management approaches to cater for emerging uncertainties during project execution. When the project follows an incremental methodology, the project team can make changes to the scope, allowing fixation of emerging issues before proceeding to the next iteration. This way, the risk of delivering a non-functional product at the end, which is the greatest failure in project management, is significantly addressed early.

However, it is prudent to acknowledge that all projects cannot use all the characteristics of the PM 2.0 characteristics. As such, it would be ideal to give the project managers the freedom to choose the practices they see appropriate for a particular project, that is, project managers should be given the opportunity to choose the types of product development methodology and elements to use for a particular project.

Focusing on system development projects, for example, the SDLC methods are defined by varying number of steps, which in part determine their appropriateness for particular projects despite all following agile methodologies. For example, there are seven-step SDLC approaches, 12-step SDLC approaches and four-step SDLC approaches. Each of these SDLC approaches have distinct phases with different elements that make them ideal for particular projects and project managers should be given the opportunity to choose which fits their situation. The seven-step SDLC model is ideal for simple projects that follow the waterfall model. This is because it is possible for project managers to identify all the requirements of simple projects and plan appropriately, allowing no changes in scope or return of the project to the preceding phase. The four-step SDLC model is appropriate for large and complex projects that are incremental in nature. The incremental nature of such projects necessitates the application of agile project management, which is a key defining characteristic of PM 2.0 (Microsoft Inc., n.d).

Conclusively, PM 2.0 practices seem more appropriate to managing projects today due to the ever increasing systems complexity compared to PM 1.0. It is, therefore, recommendable to use PM 2.0. However, project managers should be given the freedom to choose PM 1.0 practices they see fit for their projects.

References

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