PMBoK versus Agile in contemporary projects

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EXECUTIVE SUMMARY:

This report compares and contrasts the application of the PMBoK project management methodology with the Agile methodology to a contemporary project as described in an assigned case study. The report identifies similarities and differences between the two methodologies, how each treats project risk, the types of projects in which each is used, and how each differs across different phases of a project's lifecycle. The report concludes that Agile is the better choice of methodology for the assigned case study, as it is flexible, adaptive, emphasizes collaboration, and enables quicker time to market. In contrast, PMBoK may be too rigid and structured for contemporary projects. The report recommends the use of the Agile methodology for contemporary projects.

INTRODUCTION:

Project management methodologies are crucial for ensuring that projects are delivered on time, within budget, and with the desired quality. The PMBoK (Project Management Body of Knowledge) project management approach is a widely recognized and accepted framework for project management. The PMBoK approach emphasizes a structured and formal approach to project management, focusing on clearly defined processes and deliverables, as well as a comprehensive understanding of project scope, time, cost, quality, human resources, risk, procurement, and communication (Rosenberer & Tick, 2021). The historical context of PMBoK can be traced back to the 1950s and 1960s when large-scale projects, such as the construction of the US interstate highway system and the Apollo space program, led to the development of project management as a distinct discipline.

Agile, on the other hand, is a relatively newer approach to project management that originated in software development in the 1990s (Sirshar, Amir & Daud, 2019). Agile emphasizes iterative development and continuous feedback, prioritizes customer satisfaction over adherence to a plan, and values collaboration and flexibility. Agile emerged in response to the limitations of traditional project management approaches, particularly in the software development industry. Agile methodologies were developed to address the challenges of managing complex and rapidly changing projects, where traditional project management approaches were often seen as too rigid and inflexible (Rosenberer & Tick, 2021). The Agile Manifesto was first introduced in 2001 and has continued to evolve and gain popularity in various industries beyond software development.

SIMILARITIES AND DIFFERENCES:

Similarities:

- Both PMBoK and Agile are project management methodologies that provide a structured approach to project management. They both have processes and tools that help manage projects efficiently.
- Both methodologies emphasize the importance of communication and collaboration between team members. They both recognize that effective communication is crucial to the success of a project.

Differences:

- PMBoK is a more traditional and structured approach, whereas Agile is a more flexible and adaptive approach. PMBoK follows a linear process, while Agile follows an iterative process.

- PMBoK places a stronger emphasis on project planning and documentation, while Agile values working software and customer collaboration over documentation.
- PMBoK is better suited for larger and more complex projects with well-defined requirements, while Agile is better suited for smaller and more dynamic projects with changing requirements.

These similarities and differences are relevant to the assigned case study because they help project managers decide which methodology is best suited for a particular project. In the case of the assigned project Agile may be a more appropriate methodology due to its flexibility and emphasis on working software and customer collaboration. However, PMBoK may also be useful for ensuring that all project requirements and deliverables are well-defined and documented.

Risk:

Risk management is an important aspect of project management, and both PMBoK and Agile have their own approaches to managing project risk. PMBoK approaches risk management in a structured manner, with a focus on identifying and analyzing risks before developing a plan to address and mitigate those risks. The process involves identifying potential risks, assessing the likelihood and impact of those risks, and then developing a risk management plan that outlines strategies for mitigating or responding to those risks (Sherstobitova et al, 2020). The PMBoK methodology also emphasizes monitoring and controlling risks throughout the project lifecycle. Agile, on the other hand, takes a more iterative approach to risk management. Agile recognizes that risks can arise at any point in the project, and so emphasizes ongoing risk assessment and management throughout the project lifecycle (Rosenberer & Tick, 2021). Agile teams often use

retrospective meetings to reflect on the project and identify potential risks, and they prioritize addressing high-priority risks in each iteration.

The agile methodology may be more relevant for addressing risks that arise during the project's implementation. Given the iterative nature of Agile, the development team can identify and respond to risks in a more timely and flexible manner. For example, if a particular feature of the software is not meeting user needs, the team can quickly pivot and adjust their development strategy to address that risk.

PROJECT CONTEXT:

PMBoK and Agile are project management methodologies that can be used in different types of projects, but they are often better suited to certain types of projects. PMBoK is a more traditional approach that is typically used for larger and more complex projects that have well-defined requirements. It is often used in industries such as construction, engineering, and information technology, where the project scope, timeline, and budget are well-defined at the outset (Sirshar, Amir & Daud, 2019). PMBoK's structured approach helps ensure that all project requirements are met, and that the project is delivered on time and within budget. Agile, on the other hand, is better suited for smaller and more dynamic projects that have changing requirements. It is often used in software development, where the requirements can evolve as the project progresses (Sherstobitova et al, 2020). Agile's iterative approach allows development teams to respond to changes and incorporate feedback from customers or stakeholders quickly. This makes it a good fit for projects that require flexibility and responsiveness. In this case, project managers need to consider the specific needs of their project when selecting a methodology (Rosenberer & Tick, 2021). PMBoK may be a better fit for large and complex

projects with well-defined requirements, while Agile may be more appropriate for smaller projects with changing requirements.

LIFECYCLE IMPLICATIONS:

In PMBoK, the project is divided into five stages: initiating, planning, executing, monitoring and controlling, and closing. In each stage, the project manager and team focus on specific tasks and activities to achieve the project's objectives. During the initiating phase, the focus is on defining the project's scope, goals, and stakeholders (Sirshar, Amir & Daud, 2019). In the planning phase, the team develops a detailed project plan, including timelines, budgets, and resources. During the executing phase, the project plan is put into action, and the team works on completing the project's tasks. The monitoring and controlling phase involves tracking progress, identifying and addressing any issues or risks that arise, and making necessary adjustments. Finally, during the closing phase, the project is completed, and all final deliverables are provided to the client or stakeholders.

Agile, on the other hand, takes an iterative approach to project management, with the project being divided into a series of short development cycles, called sprints. Each sprint involves planning, executing, and reviewing specific features or functionality. During each sprint, the team focuses on delivering a specific set of features, with the goal of providing a functional product at the end of each sprint. Agile teams prioritize flexibility and responsiveness, so there may be more overlap between the different phases of the project lifecycle.

The different lifecycle implications of each methodology can be relevant to the assigned case study. For example, if the project implimentation requires a more structured approach, PMBoK may be a better fit. This could involve a detailed project plan with well-defined

milestones, budgets, and resources (Rosenberer & Tick, 2021). If the project requires more flexibility and responsiveness, Agile may be a better fit, allowing the development team to adapt to changing requirements and feedback from stakeholders.

APPLICATION:

For the assigned case study, I would recommend using the Agile methodology for the project. Contemporary projects require an approach that can adapt to the changing needs of the project. In contrast to the traditional Waterfall approach used in PMBoK's structured approach, contemporary projects require an iterative and flexible approach (Rosenberer & Tick, 2021). This is because requirements for contemporary projects are often unclear or change frequently. In such situations, the Agile methodology is well-suited as it allows for iterative development that enables the team to respond quickly to changing requirements. By breaking the project down into smaller sprints, Agile enables the development team to deliver functional software at the end of each sprint IAvlijaš, 2020). This approach allows for quicker time to market, which is crucial for startups operating in a competitive market.

Furthermore, Agile emphasizes collaboration and communication between the development team and stakeholders. This approach ensures that the project team has a clear understanding of the project goals and requirements. It also ensures that stakeholders are aware of the progress and are involved in decision-making throughout the project (Rosenberer & Tick, 2021). Collaboration is vital in contemporary projects, as it promotes a sense of shared ownership of the project, and ensures that everyone involved is aligned with the project goals.

In conclusion, contemporary projects require a modern approach to project management that is flexible, adaptive, and emphasizes collaboration. The Agile methodology is well-suited

for contemporary projects as it enables iterative development, quicker time to market, and emphasizes collaboration and communication. In contrast, the PMBoK methodology may be too rigid for contemporary projects, as it is structured and does not allow for the flexibility required for modern projects (Linke, 2019). Therefore, for the project described in the assigned case study, Agile would be the better choice of methodology

References

Avlijaš, G. (2020). Modern approach to project management, usage, and success rate of agile methodologies: An evidence from Serbia. In *Sinteza 2020-International Scientific Conference on Information Technology and Data Related Research* (pp. 154-159). Singidunum University. Retrieved from: https://portal.sinteza.singidunum.ac.rs/Media/files/2020/154-159.pdf

Gubinelli, S., Cesarotti, V., & Introna, V. (2019). The evolution of Project Management (PM): How Agile, Lean and Six Sigma are changing PM. *The Journal of Modern Project Management*, *7*(3). Retrieved from: https://jmpm.versita.com/index.php/jmpm/article/download/JMPM02108/271

Linke, K. (2019). Traditional and Agile Management Approaches. In *12th ILERA European Congress, Düsseldorf, Deutschland*. Retrieved from: https://www.researchgate.net/profile/Knut-Linke/publication/335724209_Traditional_and_Agile_Management_Approaches/links/5d77c3de299bf1cb8097b0a3/Traditional-and-Agile-Management-Approaches.pdf

Rosenberer, P., & Tick, J. (2021). Agile enhancement of critical PMBoK v6 processes. *The Journal of Modern Project Management*, *9*(1). Retrieved from: https://jmpm.versita.com/index.php/jmpm/article/download/JMPM02613/42

Sherstobitova, A. A., Glukhova, L. V., Khozova, E. V., & Krayneva, R. K. (2020). Integration of agile methodology and PMBOK standards for educational activities at higher school. In *Smart Education and e-Learning 2020* (pp. 339-349). Springer Singapore. Retrieved from:

https://www.researchgate.net/profile/Radda-Iureva/publication/341996378_Security_by_Design_Development_Methodology_for_File_Hosting_Case/links/6021813ca6fdcc37a8126d6b/Security-by-Design-Development-Methodology-for-File-Hosting-Case.pdf#page=338

Sirshar, M., Amir, K., & Daud, M. (2019). A comparative Analysis of Various Methodologies of Agile Project Management Verses PMBOK: A Case Study. Retrieved from: https://www.academia.edu/download/61512093/spm_1_120191214-80011-15tjvlv.pdf