Comparison and Contrast Between PMBOK and Agile Development Approaches

Student Name

Institutional Affiliation

Date

Several approaches to project development exist with each having its pros and cons especially when compared with each other. These approaches specify the phases to be followed in developing a project, together with tasks to be accomplished at each phase. The choice of an approach depends on, among other things, the nature of the project to be developed. The development environment, requirements, constraints and objectives differ from one project to another and so proper approaches should be chosen for each situation.

The Project Management Book of Knowledge (PMBOK) approach splits the development process into five phases where the project manager and team have to: (1) Initiate, (2) Plan, (3) Execute, (4) Control and (5) Close the project. PMBOK comprises of standards and guidelines that guide the process of project development. The guide is updated as the knowledge changes. The professional world changes with every passing day, giving rise to more need for a different approach to managing projects, this is why the guide is always updated and the latest editions made available to project managers around the world.

The approach has it that a project starts with an idea which is conceived and then analysed to determine if it can be implemented. The idea has to be vetted against the goals and/or objectives of the organization so that the benefits of the project to the organization can be established. The idea is dropped if it appears not to have any benefits to the organization. The idea can also be dropped if it is deemed unrealistic or too big and hence not achievable. The project is initiated by the decision that the idea can be implemented. A plan is then made containing all the work that will be performed on the project before completion. The plan lists the tasks to be performed and the people who will perform them. The schedule and budget are also drafted at this stage. The project is then launched and execution work began basing on the plan. As the execution continues, control work is done by comparing what has been achieved so far against what was planned and proper decisions made to ensure that the project runs within budget and schedule. The last phase under PMBOK is the project closing phase which takes place when all tasks have been completed and the client has approved the project. Therefore, user acceptance testing takes place after project completion and the user is presented with the complete project. The project development work is the terminated and the project deployed.

Agile software development methodology uses an iterative approach to project development, revolving around the project team. The methodology has four values which place more importance on people and their interaction as opposed to processes and tools, working software as opposed to some great documentation, customer collaboration as opposed to contract negotiation and also the ability to respond to change after a plan. The idea is to major on the project team and to involve the client at every stage of development.

User requirements may change during project development and while other methodologies will reveal this at the end, agile methodology will reveal it at the end of an iteration. Every phase of development is worked on iteratively, involving the team and the client with the product of each iteration delivered to the client for user acceptance testing. Suggested and recommended changes are then made appropriately way before deploying the complete project. No time is wasted on collecting requirements and designing the system, instead, the whole project is divided into iterations which have equal schedules. The requirements needed for the first iteration are determined then work on it began immediately, producing a working software at the end. Any features not captured in one iteration are captured in subsequent iterations. At the end less time is spend and the product deployed at the end is of high quality and is acceptable to the client.

The EIM project had HealthCare Partners as the clients and CTG as the developer and called for a proper collaboration between the two to ensure that the project is completed successfully. Requirements had to be collected first before developing the project and then designing work done before executing. The project ended up consuming too much funds above what it was first budgeted for. A lot of time was also wasted chasing up the users in an attempt to collect all the requirements necessary to complete the whole project as most of them would not turn up for scheduled meetings. More time was also lost in troubleshooting configuration issues with the development environment. This project required the agile development methodology.

With agile development methodology used for the EIM project less time would have been wasted because the little requirements obtained at first would have been enough to develop one iterative component of the system as other requirements are sort for. Even when the development environment proved faulty, other iterations which do not directly depend on that would be undergoing development. Less money would have been spend as well due to the reduced number of tasks to be performed. With the client consulted at the end of every module, the product would have emerged a better quality one. Doing the work iteratively also ensures that no errors are left unsolved and the product will function normally, allowing the team to move on to the next iteration. There was also a problem of demotivation and several technical employees had threatened to resign, exposing the project to more shortcomings. The team members would only want to resign if they felt that some aspect about the project or their welfare (or both) was not being properly handled by the management. Agile development approach would solve this problem from the onset because agile methodology is centred on the project team and ensures team satisfaction is achieved.

The House-build project is a different type of project because it is about the construction a house, something that is irreversible. Unlike an information system whose bugs are troubleshot by modifying the code, bugs encountered in such a project as house construction can only be corrected by demolishing the affected part and re-building it. This automatically leads to a loss of time and funds because the demolished part consumed resources to get to that level. It is also not easy to split the house construction work into iterations because the different parts are interdepended. For instance, there has to be a foundation in place for the wall to be built while a roof will depend on the existence of walls. This project relies heavily on proper planning. The project has to be properly planned in the beginning and every stage along the way executed in accordance with the plan without changing even a single aspect because it would change the whole project. If any changes are to be made, then they have to be made either before construction or during construction when the modification can be done easily without bringing down the whole construction. Each phase is completed once with no iteration. For instance, the foundation is only dug once then followed by the construction of walls. The client can be seeing the progress as the construction work goes on till the end and does not and should not change the requirements along the way, or at least make just a minor change that will not affect the whole project. For these reasons, PMBOK is the best approach for this project.

In implementing agile development approach to the EIM project, the complete project should first be split into several modules that can function independently and can take almost the same time. It is important for the modules to take almost the same time so that even as they are iterated the main project will still be operating on schedule. The modules should then be ranked based on priority, among other factors, then the requirements for the first module collected from the HealthCare Partners. These should be few requirements and so will not take much time. Work on this first module should then be started and when a working software sub-product is produced, it should be presented to HealthCare Partners, the clients, and then any suggested modifications worked on before progressing. Every time modifications are made the system has to be presented again till the module works in accordance with the user requirements. Meanwhile, requirements and resources for the second module should be collected so that as soon as module one is done with, work can begin on that second module right away and the same process repeated for all the modules in the project. By the time the last module is developed the client would have seen what the system will look like and would just be waiting for the compiled product to be deployed. The project would also have costed not as much money. The project team which is a very key determinant of the success and quality of any project would have been maintained at favourable conditions and state so that they stay motivated at all times during the project development period.

In implementing the PMBOK approach on the House Construction project, the project initiation phase will have to be thoroughly done with the project benefits stated and decision to begin work made. It is important for the client to be committed from this point and especially at this point because once the idea is implemented and work began there will be less chances of making major modifications. The project is then defined and planned; requirements about the house collected and analysed then plans of tasks execution made. The tasks to be done are established and then the resources attached to each of the tasks stated clearly. With requirements and a plan in place, the house construction work is then began; starting with the foundation all the way up with one thing done before the other. The project milestones will comprise of the various sections of the construction to be completed within some stated time, for instance, digging the foundation within a week. The project is then checked for performance and controlled against the plan. The project should be progressing in accordance with the plan and if it drifts out of the plan, immediate action should be taken to bring it back on track. The client should be visiting the site to see the progress of the construction and commenting as work goes on. Some of the comments made may be implemented at subsequent milestones of the project. When all the construction and furnishing activities are done, the project should be closed. Having been constructed based on proper requirements analysis and planning plus the constant visitations by the client, the project will definitely be a success.